



INFLATION REPORT

December 2007



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Banco de la República
CENTRAL BANK OF COLOMBIA
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THE INFLATION TARGETING STRATEGY IN COLOMBIA

OBJECTIVES

Monetary policy in Colombia is governed by an inflation-targeting scheme aimed essentially at achieving low rates of inflation and fostering stability in output growth around its long-term trend. Accordingly, monetary policy combines the aim of price stability with the objectives of maximum sustainable growth in output and employment, thereby fulfilling its constitutional mandate and contributing to the population's well-being.

HORIZON AND IMPLEMENTATION

The Board of Directors of the Banco de la República sets quantitative inflation targets for the current and the following year. The Board's policy actions are designed to meet each year's target and bring inflation down to around 3% in the long run. The targeted inflation measure is annual change in the consumer price index (CPI).

DECISION-MAKING PROCESS

Monetary-policy decisions are based on analysis of the current state of the economy and the outlook for it, and on evaluation of the inflation forecast in relation to the set targets. If the evaluation suggests, with a sufficient degree of confidence, that under prevailing monetary-policy conditions inflation will depart from target within the policy's operating time horizon and do so without being driven by transitory shocks, the Board will proceed to modify its policy stance, mainly by changing intervention rates, that is, the interest rates on the Bank's short-term liquidity operations.

COMMUNICATION AND TRANSPARENCY

Monitory-policy decisions are announced immediately after the Board's monthly meeting, in a press release posted on the Bank's website: www.banrep.gov.co.

Quarterly *Inflation Reports* provide transparency on the Board's decisions and help to make monitory policy better understood and more credible. Specifically, the *Inflation Reports'* objectives are: i) to communicate to the public the views of the Bank's Board of Directors and Technical Division about recent and expected movements in inflation and factors determining inflation in the short and medium term; ii) to explain the implications of those factors for monetary-policy management in the context of inflation targeting; iii) to explain the context and analysis underpinning monetary-policy decisions during the quarter; and iv) providing information that helps economic agents to form expectations about the future course of inflation and output growth

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ASSESSMENT OF INFLATION SITUATION AND POLICY DECISIONS

POLICY DECISIONS IN FOURTH-QUARTER 2007

The Banco de la República's Board of Directors started to raise the benchmark interest rates in April 2006 from low real levels, in response to inflationary pressures that may have come from aggregate demand running above long-term sustainable levels. Although the 2006 inflation target was met, in 2007 the Board, taking into account inflation and economic-growth projections, raised the intervention interest rate seven times. Information available over the year confirmed the presence of inflationary pressures that jeopardized achieving the aim of price stability.

In 2007, annualized inflation peaked in April (6.26%) but decreased over the following five months until September (5.01%), then it went up again in October (5.16%) and kept on rising to the end of the year. In the last three months of 2007, the different measures of core inflation moderated their upward trend but remained high, indicating that excess demand, though abated, continued to exist.

Economic-growth figures for the first three quarters of 2007 overshot forecasts by local and international analysts and also projections by the Bank's technical team. Early data on fourth-quarter economic activity in sectors associated with industry, commerce and construction, on the supply side, and Fedesarrollo's consumer-survey findings, on the demand side, revealed first signs of a slowdown. Yet, aggregate demand continued to grow apace.

Job creation expanded considerably faster in the final months of 2007, lowering unemployment to 9.4% in November, compared with 11% a year earlier. Despite a slowdown in some types of credit, real annual increase in the loan portfolio and real growth rates of financial liabilities continued to far outpace GDP growth.

Hence, in a setting characterized by strong growth in aggregate demand and credit, by high capacity utilization, higher inflation expectations, and an international context in which the latest news pointed to a moderate slowdown in the US economy, the Board of Directors at their meeting on November 23 decided

unanimously to raise intervention rates by 25 basis points, from 9.25% to 9.50%. This decision was further intended to anchor inflation expectations and enhance credibility in meeting the 2008 inflation target, left unchanged at 3.5%-4.5%.

In December 2007, available information continued to reflect positive growth in the economy. But mounting uncertainty in world markets led to our main trading partners' growth estimates being revised down. Given this scenario, the Board thought it prudent to leave interest rates unchanged.

Despite timely monetary-policy action (rate increments, higher marginal reserve requirements, etc.), inflation ended the year at 5.69%, overshooting the upper limit of the 2007 target range by 119 bp, largely because food inflation resulted considerably higher than expected.

CAUSES OF THE FAILURE TO MEET THE 2007 INFLATION TARGET

To explain what caused the 2007 target to be missed, it is important to break down inflation by duration and origin. For instance, when supply shocks occur, such as those resulting from climate change, food prices undergo transitory increases, regardless of the monetary-policy stance. Similarly, price rises for regulated goods and services are set by local or national authorities, over whose administrative decisions independent central banks have no influence. Moreover, when an increase in inflation is perceived to be permanent because it is caused either by strong demand or higher inflation expectations, monetary policy is crucial to stabilizing prices and ensuring long-term economic growth. Most countries, therefore, build core-inflation indicators that exclude from the consumer price index both the groups subject to transitory supply factors and the groups of regulated goods, in order to see the monetary-policy effects on inflation that can be controlled by the central bank. In this connection, a description follows of the main causes of failure to meet the 2007 inflation target. Food inflation contributed most to acceleration in inflation last year, having consistently grown all year long at rates far above the target range, to end up at 8.5%. The rise in food prices is attributable in part to a drop in supply caused by weather conditions (El Niño and La Niña phenomena), strong demand from Venezuela, and some high and sharply rising world commodity prices. Strong demand may also have been responsible for restaurant meals showing an annual price growth of 7.17%, up by 137 bp on a year earlier.

World food-price behavior, one of the causes of missed inflation targets in several countries, was the outcome of various factors. In the first place, high oil prices raised freight charges and the prices of a number of agrichemicals. Another factor was the move toward production of fuels of vegetable origin such as biofuels from cane sugar, corn and corn substitutes, oil plants, etc., which pushed up the international prices of these goods and some farm inputs. Likewise, world demand for energy crop land has gone up, reducing the planting of other food crops, especially for human consumption, and hence their supply. Lastly, mounting food

demand from the larger emerging economies, such as China and India, has also contributed to keeping world food prices elevated.

It is worth noting that in emerging markets a good part of the considerable increase in food consumption is concentrated in proteins of animal origin (beef, pork, chicken, aquaculture products, eggs and milk), which require the same raw materials as are used in producing biofuels (corn, sugar cane, oil plants), and it is the price of these crops that have risen most among farm commodities.

The duration of high world food prices and their impact on expectations of higher prices and headline inflation were underestimated by several central banks, including Colombia's.

Inflation in regulated goods and services (fuel, transport and public services) was far above the target range all year long, ending 2007 at 6.42%. This group was affected by high world prices for oil and oil products. Moreover, greater demand for tourism at home and abroad further contributed to elevating fares for land and air travel.

The traditional measure of core inflation (CPI excluding food) registered annualized price increments of less than 4.5% in ten of the twelve months, ending the year at 4.47%, below the upper limit of the 2007 target range.

Excluding food and regulated goods and services from the CPI gives a core-inflation measure that stood at 3.95% at the end of 2007, having run all year long at annualized rates below the midpoint of the target range. This core-inflation measure can be divided into two groups: i) *tradables*, defined as prices that are strongly affected by the exchange rate, and ii) *nontradables*, the rest of goods and services, which cannot be commercialized internationally and are priced based largely on domestic factors. The two groups behaved as follows:

- Tradable inflation benefited from the peso's appreciation against the dollar (-12%), ending the year at 2.28%, a little higher than in 2006 (1.71%). Strong demand may have been responsible for this behavior not being more consistent with revaluation of the peso.
- Nontradable inflation closed the year at 5.19%, having run all year long at annualized rates between 4.93% and 5.56%. This behavior suggests that domestic demand exerted significant inflationary pressure, a fact borne out by strong growth in domestic consumption, commerce and investment. The nontradables that most contributed to accelerating this inflation between 2006 and 2007 were entertainment-related services, school fees and banking services.

Consumer Price Index
(Annual Change)

Description	2006 (1)	2007 (2)	Acceleration (1) - (2) Basis points	Contribution to acceleration	
				Basis points	Percentage
Total	4.5	5.7	1.2	1.2	100.0
Food	5.7	8.5	2.8	0.9	74.4
Regulated items	6.1	6.4	0.3	0.1	4.1
Nonfood CPI	3.9	4.4	0.5	0.3	25.6
Nonfood nonregulated CPI	3.4	4.0	0.5	0.3	21.5
Tradables	1.7	2.3	0.6	0.1	9.9
Nontradables	4.8	5.2	0.4	0.1	11.6

Source: DANE

POLICY DECISIONS IN JANUARY 2008

In early January, news about the US increased the likelihood of a recession there: corporate and consumer credit became more constrained; labor-market figures deteriorated; oil quotations kept on rising; and share prices fell significantly on several developed-economy stock markets.

In this scenario, uncertainty grew about the size and duration of a possible recession in the US and its effect on other developed countries and also on emerging nations. In the case of Colombia, very low growth in the world's biggest economy could affect our exports, commodity prices, capital flows and remittances, among other things.

In these circumstances, the Board decided to leave interest rates unchanged pending further information about the international scene.

Despite the foregoing, the Bank's technical team estimates that the Colombian economy may have grown by some 7% in 2007 and is likely to expand in 2008 by about the average rate for the past five years. Inflation projections show a high degree of uncertainty, mainly associated with the evolution of domestic and international food prices, changing expectations, and the impact of the world economy on growth in Colombian aggregate demand.

The Board will continue to carefully monitor the international situation, along with inflation behavior and forecasts. They reiterate that future monetary policy will depend on fresh information and the impact of such information on inflation expectations and projected inflation relative to targets.

Board of Directors
Banco de la República

INFLATION REPORT

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I. RECENT INFLATION DEVELOPMENTS

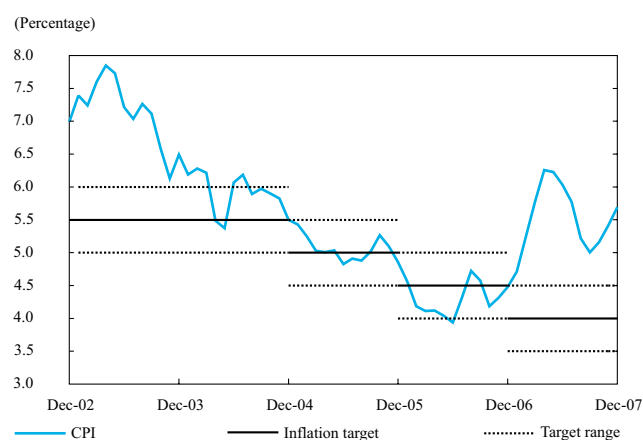
Inflation was on a rising trend at the end of 2007, running above the target range, driven by high food and fuel prices and excess demand.

Nontradable inflation, excluding food and regulated prices, fell in the fourth quarter but remained above target.

Inflation expectations twelve months ahead were also on the rise at the end of 2007, overshooting the 2008 target.

Economic growth moderated but was still stronger than predicted by previous *Inflation Reports*. Though private consumption also slowed in 2007, its pace of growth was faster than the average for the previous five years.

Graph 1
Annual Consumer Inflation and Targets
variación anual



Sources: DANE; calculations by Banco de la República.

Annualized inflation in fourth-quarter 2007 was on a rising trend, climbing from 5.01% in September to 5.69% in December. At the end of the year, inflation stood above the 2007 target range (3.5% to 4.5%) set by the Banco de la República's Board of Directors. It was also higher than in December 2006 (4.48%). No inflation targets had been missed since 2003, neither had year-end inflation exceeded the previous year's level since 1996 (Graph 1). In 2007, many countries besides Colombia saw inflation rising and overshooting targets.

Actual inflation tended to exceed the Bank's fourth-quarter forecasts presented in the September *Inflation Report*, which predicted a year-end level of 5.0%. By item group, under-projection was concentrated in food

inflation, the 6.8% forecast resulting far lower than the actual rate of 8.5%. In contrast, the forecast for nonfood inflation (4.2%) was only slightly lower than the actual rate (4.4%), though nonfood nonregulated tradables were substantially under-estimated, while discrepancies with the final result were smaller for both nonfood regulated items and nonfood nonregulated nontradables (Table 1).

Table 1
December 2007 Actual and Forecast Inflation

	Forecast made in September 2007	Actual rate
Headline inflation	5.0	5.7
Nonfood inflation	4.2	4.4
Nontradables	5.4	5.2
Tradables	1.4	2.3
Regulated prices	6.1	6.4
Food inflation	6.8	8.5

Source: DANE; calculations by Banco de la República.

The acceleration in inflation between December 2006 and December 2007 was concentrated in food prices (74%), with all the main food components except cereals and oils contributing to the rise. The nonfood segment of the consumer price index (CPI) accounted for the remaining 26%, with increases in its three components (tradables, nontradables, and regulated items) (Table 2).

Table 2
Breakdown of Annual Inflation, by Upward Pressure

Description	Weighting	Annual growth			Contribution to acceleration	
		Dec-06	Sep-07	Dec-07	Q4	Annual
Headline inflation	100.00	4.48	5.01	5.69	100.00	100.00
Nonfood inflation	70.49	3.95	4.12	4.43	31.65	26.21
Tradables	24.67	1.71	1.19	2.28	37.01	10.03
Nontradables	36.77	4.75	5.55	5.19	(14.80)	11.90
Regulated prices	9.04	6.12	5.96	6.42	9.44	4.28
Food inflation	29.51	5.68	6.96	8.51	68.35	73.79
Vegetables, fruit, root crops and milk	7.15	2.79	1.35	6.66	63.25	26.13
Cereals, oils and other	5.35	9.62	6.61	9.12	21.74	(0.26)
Eating out and other	9.52	5.83	8.10	7.65	(4.70)	14.44
Beef and beef substitutes	7.48	5.81	12.40	11.12	(11.94)	33.49

Source: DANE; calculations by Banco de la República.

GLOBAL FOOD INFLATION AND MONETARY-POLICY RISKS

Carlos Huertas C.*

Colombia was not alone in seeing inflation pick up in 2007: a large number of other countries did so too. For example, Chile, one of the most stable economies in Latin America, reported year-end inflation of 7.8% in 2007, far above the 2006 rate of 2.6%. The corresponding figures for the European Union were 2.6% and 1.9%; for the United States, the world's biggest economy, 4.1% and 2.5%; and for China 6.9% and 1.9%, more than a threefold increase. Global inflation thus came in at 4.8%, up by 200 bp on a year earlier.

In many countries inflation overshot the 2007 targets set by the respective monetary authorities. All the selected sample countries in Table A, except Brazil, Canada and Mexico, missed their targets. The overshoot was significantly wide even in countries such as Chile, Peru and Hungary where inflation had been low and stable in previous years.

Table A
Breakdown of Annual Inflation, by Upward Pressure

Description	Target range 2007	Headline inflation at Dec./06	Headline inflation at Dec./07	Core inflation 2007
Chile	3.0 +/- 1.0	2.6	7.8	6.3
Brazil	4.5 +/- 2.0	2.8	4.2	4.0
Colombia	3.0 +/- 1.0	4.1	3.8	4.0
Mexico	4.0 +/- 0.5	4.5	5.7	4.4
Peru	1.0 - 3.0	1.1	3.9	3.1
United States	1.0 - 2.0	2.5	4.1	2.4
Europe	0 - 2.0	1.9	3.1	1.9
England	2.0	3.0	2.1	n.d.
Canada	2.0 +/- 1.0	1.7	2.4	1.6
China	3.0	1.9*	6.9*	n.d.
Korea	3.0 +/- 0.5	2.1	3.6	2.4
Czech Republic	3.0 +/- 1.0	1.2	5.5	5.4
Hungary	3.0 +/- 1.0	6.5	7.4	4.8

n.a.: Not available

Note: Figures available only up to November/07.

Source: Datastream and central banks.

In most countries the pick-up in inflation was driven by, but not limited to, fuel and food prices. Core or underlying inflation, which usually excludes fuel and food and captures monetary-policy action better, also rose above target in many countries. It is important to analyze the rise in core inflation, for it may suggest the existence of factors other than those referred to above that may have had a bearing on last year's expansion in global inflation.

According to recent literature, one such factor would be higher household income in many countries, associated with the recent pick-up in the global economy. This would not be inconsistent with the inflationary role played by high fuel and food prices, given that the behavior of many economies is sensitive to movements in these two prices. The high price of oil has increased the producing countries' incomes at the same time as raising freight charges and the cost of oil products. Moreover, greater demand for biofuels, caused by the relative scarcity of traditional sources of energy, has made land more expensive, increasing the cost of food production

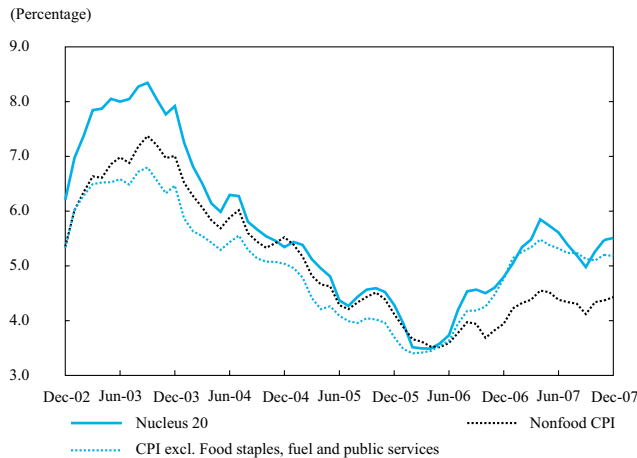
According to a recent IMF study, food inflation has, in turn, helped to drive up the prices of other goods.¹ This study suggests that food prices are a major determinant of inflation in nonfood goods, through multiple indirect channels, particularly in emerging economies and low-income countries. For instance, it is estimated that a temporary 1 pp rise in food inflation would cause an increase of 0.1-0.9 pp in nonfood inflation. And the impact would be greater as the share of food in overall consumer spending grew.

Consequently, to the extent that food and fuel prices produce a significant shock on the rest the CPI basket, a central bank with inflation targeting would have to contain the inflationary pressures arising from these prices.

* The authors are staff members of the Bank's Programming and Inflation Department; E. Caicedo is an inflation specialist.

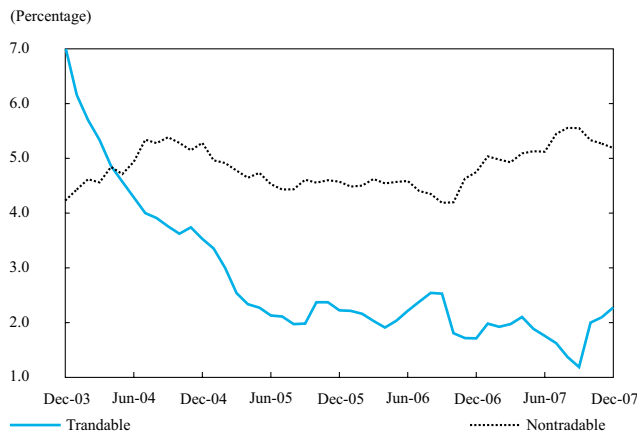
1 Part of the increase in food prices would be transmitted to the rest of the basket through higher costs of farm inputs for industrial use and through additional wage adjustments intended to maintain purchasing power.

Graph 2
Core Inflation Indicators
Annual Change



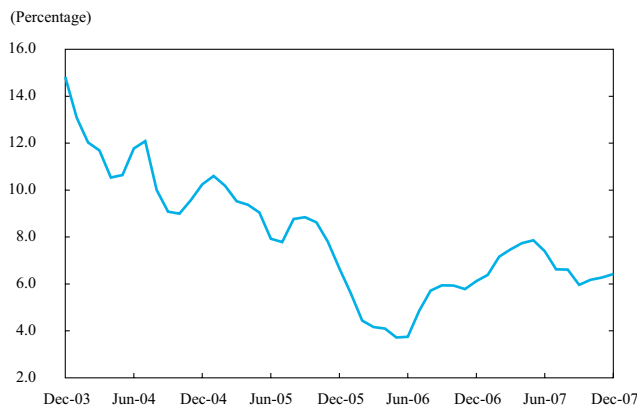
Source: DANE; calculations by Banco de la República.

Graph 3
Tradable and Nontradable CPI, non-food Non-regulated



Source: DANE; calculations by Banco de la República.

Graph 4
Regulated CPI
Annual Change



Source: DANE; calculations by Banco de la República.

A. CORE INFLATION

Core inflation, measured as the average of the three indicators regularly studied by the Bank (nucleus 20, nonfood CPI, and CPI excluding perishable foodstuffs, fuel and public services), stood at 5% in December, 30 basis points (bp) higher than in September and 50 bp higher than in December 2006. The three indicators started to climb from the second half of 2006 and peaked in April 2007 before declining slightly from May until October, when all three picked up again.

Nucleus 20 ended the year the highest of the three, at 5.5%, and with the biggest increase since September, when it had stood at 5.0%. Both nucleus 20, and CPI excluding perishable foodstuffs, fuel and public services (5.18%) exceeded the 2007 target range. By contrast, nonfood CPI came in slightly below the target-range ceiling, though 50 bp higher than in December 2006 (Graph 2).

Breakdown of the CPI into tradables, nontradables and regulated items shows that in the fourth quarter of 2007 the highest upward price pressure came from tradables, and to a lesser extent from regulated items (Graphs 3 and 4 and Table 2). At the end of the year, nonfood nonregulated tradables were affected by increases in residential telephone rates, a number of cleaning products, air fares, and batteries. Yet, inflation for this basket remained well below target all year long, thanks to the peso's appreciation (-12% average for 2007) (Graph 3).

Annualized inflation in regulated items rose from 6.0% in September to 6.4% in December. This group was affected all through 2007 by continual increases in the domestic price of gasoline, which caused it to far exceed the Bank's inflation objective. Fuel and public services were the components of this group that most contributed to the fourth-quarter acceleration in inflation. (Graph 4). Inflation in regulated items is expected to remain relatively high in 2008, because of elevated oil prices, though according to recent government announcements fuel adjustments will not necessarily be greater than they were last year's.

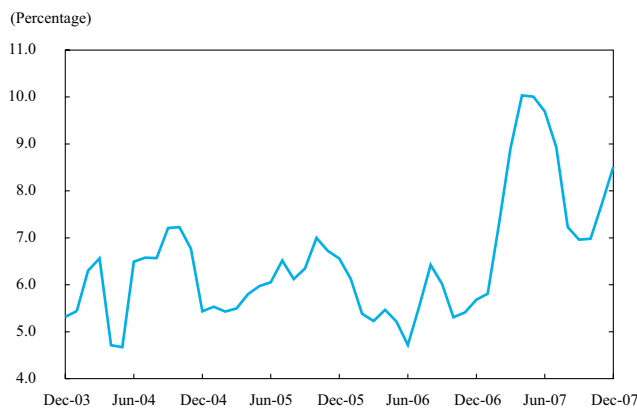
Nonfood nonregulated nontradables exerted no upward inflationary pressure in the fourth quarter: in effect, their December result was 5.2%, down from 5.6% in

September. This group, too, overshoot the 2007 target, for a good many of its prices were affected by domestic-demand pressures, to judge by the good performance of private consumption and of investment. The nontradables that most contributed to accelerating fourth-quarter inflation were amusement-related services, games of chance, and mechanic services. By contrast, annual rent inflation decreased in the last months of last year, indicating lower price pressures, perhaps as a result of the substantial growth reported in housing supply

B. FOOD INFLATION

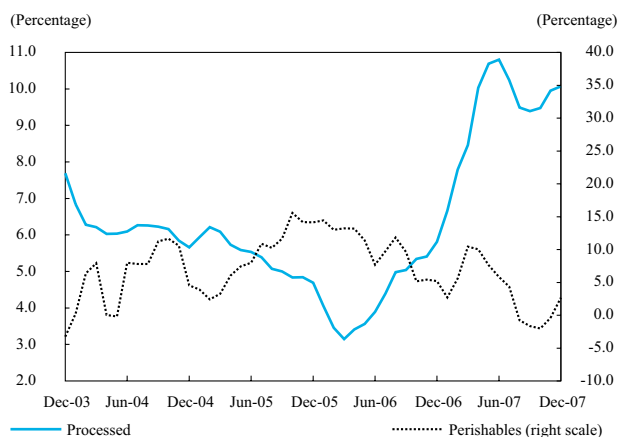
In recent years food prices have been rising faster than average inflation; they did so again in 2007 and even more markedly. Food inflation has run far above target over the past four quarters: it picked up strongly between January and April, then receded from June to September, before climbing again sharply from October on, and ending the year 151 bp higher than the September rate of 7.0%.

Graph 5
Food CPI
Annual Change



Source: DANE; calculations by Banco de la República.

Graph 6
Breakdown of Food Inflation
Annual Change



Source: DANE; calculations by Banco de la República.

In December, full-year price rises in all major components of the food group exceeded the 2007 target, and the annualized rates for two components—commodities and imports (cereals, oils and other items)—were higher than in the quarter before. The food group thus accounted for nearly three fourths of the overall fourth-quarter increase in inflation (Table 2). Note that both processed and perishable items were drivers of food inflation, with a number of vegetables accounting for the fourth-quarter rise in perishables, and milk and cooking oil for much of the increase in processed and semi-processed items (Graphs 5 and 6).

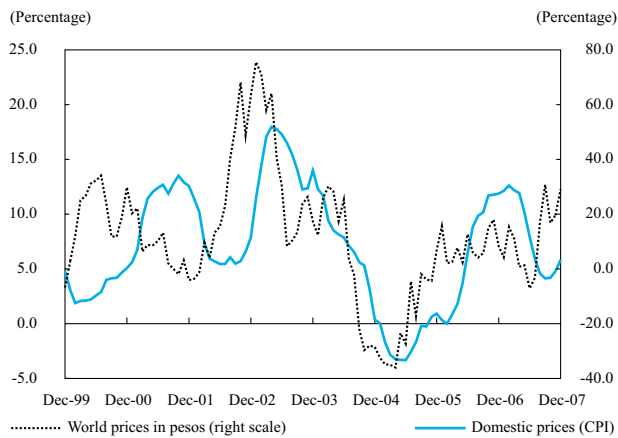
Several factors were behind the food group's poor inflation performance in 2007: 1) Two climate phenomena—El Niño in early 2007, and La Niña in the second half of the year—had a negative impact on food provisions, particularly milk, garden produce, fruit and root crops. 2) Higher demand for, and production of, biofuels pushed up world prices for some food crops and farm inputs. This, together with great food demand from China and India, kept world prices at record levels. 3) High oil prices have increased transport charges and the prices of various agrochemicals. 4) Higher external demand from Venezuela may have diverted part of the Colombia food supply to there, as occurred in the case of beef in early 2007. 5) Lastly, strong domestic demand may have helped drive up the prices of some goods and services, particularly restaurant meals, which ended the year up by more than 7%.

Several of the above trends may persist in 2008. At the same time, the cattle-retention phase would be getting fully under way, characterized by lower supply and rising real prices of beef. Moreover, according to the latest information from the US National Oceanic and Atmospheric Administration (NOAA) and the International Research Center on “El Niño” (CIIFEN), a Niña event is expected to occur in the first half of the year, potentially creating supply difficulties in some foods as a result of heavier rains than usual.

C. INFLATIONARY PRESSURES IN 2007

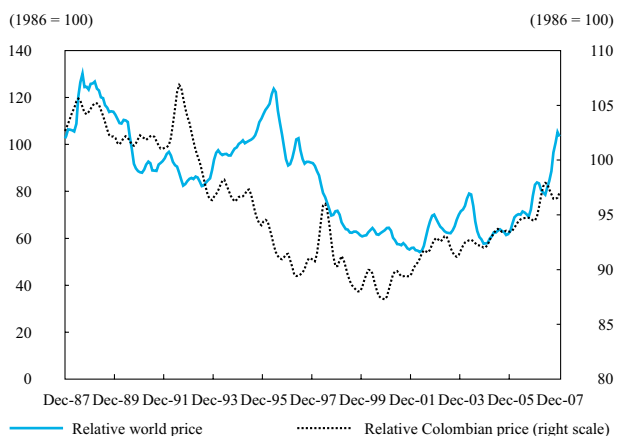
A combination of factors occurring all through 2007 explains why inflation in Colombia tended to climb and overshoot the monetary authority’s targets. In many cases it was difficult to isolate and quantify the factors involved. The major ones were as follows:

Graph 7
Tradable-Food Prices
Annual Change



Source: Datastream and DANE.

Graph 8
Relative World Food Price vs. Relative Colombian Food Price



Note: The relative world (Colombian) food price is calculated as the World (domestic) food price divided by US (Colombian) inflation.
Source: Datastream and DANE; calculations by authors.

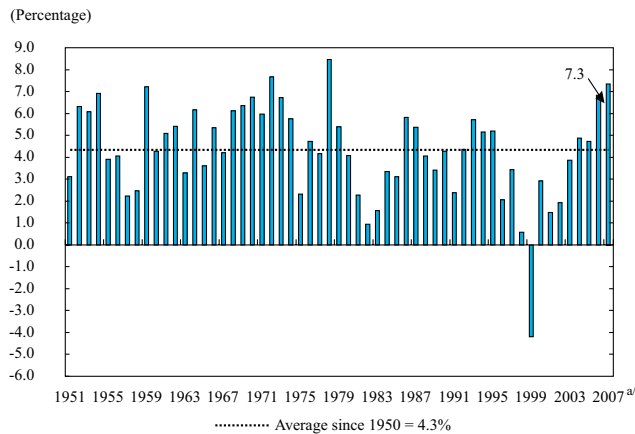
1. Inflation was influenced by sharply rising fuel prices and their impact on food, input and transport prices. In the past, domestic food prices have been tied to movements in world prices and the exchange rate: Graph 7 shows this relationship for a group of food tradables representing 14% of food CPI. The relationship between external and domestic prices has been of long standing, as may be seen from the behavior of relative prices (Graph 8). Note that this phenomenon occurs not only in Colombia but in many other countries.
2. Strong aggregate demand, growing at a pace well above historical rates, put pressure on various consumer prices. This was most clearly seen in nontradable goods and services, with a good many prices rising by more than the target rate and faster than in 2006. But tradables and foodstuffs may have also been affected to some extent. Demand pressures exceeded forecasts made in previous *Inflation Reports*, judging by the under-projection of nontradable inflation for much of 2007.

Upward pressure came also from the Niño event. But it was limited to the first half of 2007, and in the second half a good many of the most affected staple-food prices were back to their pre-shock levels.

The above price pressures were offset by exchange-rate appreciation, which prevented increments in the external prices of raw materials and food from being fully transmitted to domestic prices, thereby allowing tradable inflation to be kept low.

D. FACTORS THAT DETERMINE INFLATION

Graph 9
Real Annual GDP Growth



a/ To September.
Source: DANE; calculations by Banco de la República.

Table 3
Real Annual GDP Growth, by Type of Spending:
2006 and 2007
(percentage)

	2006	2007		
		Mar-07	Jun-07	Sep-07
Final consumption	5.6	6.0	6.2	6.4
Households	6.6	8.0	7.5	6.6
Government	2.1	(0.4)	1.9	5.6
Gross capital formation	26.9	32.8	20.9	14.2
Gross fixed capital formation (GFCF)	18.2	29.0	14.5	15.0
GFCF excl. civil works	18.4	24.6	13.1	13.8
Civil works	17.2	45.6	19.9	19.6
Inventory change	202.6	70.5	77.7	8.6
Domestic demand	9.8	11.7	9.6	8.3
Total exports	7.8	7.4	5.2	6.5
Total imports	20.8	21.3	15.9	13.1
GDP	6.8	8.4	7.1	6.6

Source: DANE; calculations by Banco de la República.

1. Aggregate demand

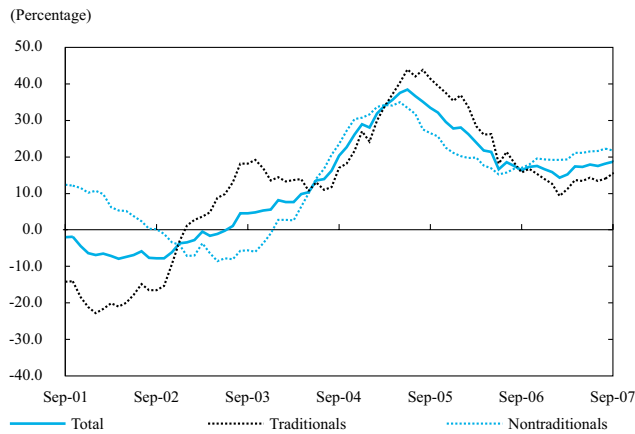
Annualized GDP growth in the third quarter of 2007 was 6.6%, higher by 0.6 percentage points than projected in the previous *Inflation Report*. This fact reveals that the Colombian economy has been slowing gradually since the second quarter of the year but more slowly than forecast by the Bank. Even so, growth continues to be high in historical terms: Graph 9 shows that, at 7.3%, annualized growth in January-September 2007 was three percentage points above the 4.3% average for the years since 1951.

From the perspective of spending, GDP expansion in the third quarter continued to be mainly driven by domestic demand, particularly by investment in civil works, thanks to several road infrastructure projects run by the central government. Although the rest of gross capital formation also grew at a good pace, this was slower than in previous periods, owing to declines in building construction over the second and third quarters: -1.9% and -8.4% respectively (Table 3). Household consumption continued to expand rapidly, but not as fast as in the second quarter (Table 3). The slowdown in consumption was concentrated in nondurables and semidurables—their joint growth fell from 9.2% in December 2006 to 5.2% in September 2007—, while durable goods were still accelerating in September.

In the third quarter of 2007, Colombian GDP continued to be driven by domestic demand.

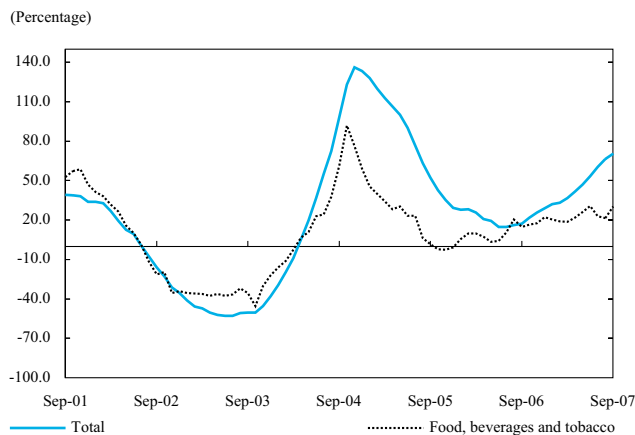
Total exports in dollars increased up till October, at an annual twelve-month cumulative rate of 17.4%, with nontraditionals growing more strongly (22.2%) than traditionals (12.5%) (Graph 10). Among traditional exports, the biggest increases were in nickel (69.0%) and coal (17.5%). Good coffee production and high

Graph 10
Exports in Dollars: Total, Traditional, Nontraditional
(Past 12 Months' Annual Growth)



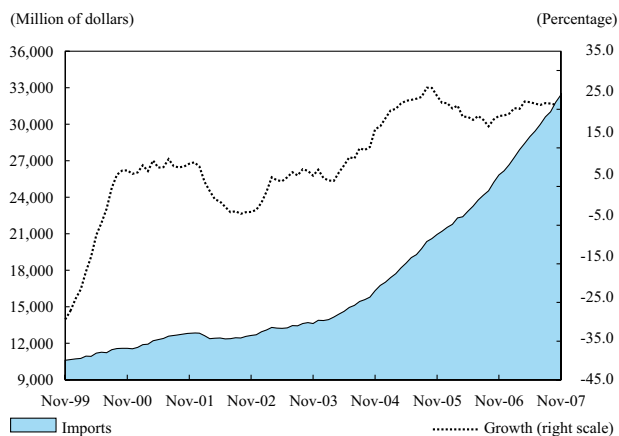
Source: DANE.

Graph 11
Exports to Venezuela, In Dollars
(Past 12 Months' Annual Growth)



Source: DANE.

Graph 12
Total Imports
(12 Months' Accumulated)



Source: DANE.

world prices brought a substantial rebound in coffee exports (11.9%). Oil and oil products, which had been shrinking since May, showed a moderate positive pick-up of 2% in October.

By destination, exports to Venezuela continued to register great strength in most products, particularly food, and in October they were growing by 75.4% (in dollars), faster than in previous months (Graph 11). Exports to Ecuador, which had been decreasing slowly since September 2006, have begun recently to show positive growth. The United States was the only major buyer of Colombian products to perform poorly: recent months have seen exports falling (in value), especially in textiles, garments, timber and bananas. This is the market where Colombian exports probably face greater competition, and they might be weakened here by the peso's appreciation. At all events, the fall-off in exports to the United States would appear to be compensated by sales to Venezuela.

Imports were still expanding fast in November 2007, though somewhat more slowly than around April (Graph 12). Analysis of imports by type of goods, according to the classification of economic use or destination (Cuode), shows this behavior most clearly exhibited by consumer goods: in November their 12-month cumulative growth was 28.2%, down from 35.3% in April. Intermediate goods, too, slowed in growth, from a record of 24.5% in June to 22.8% in November, while capital goods continued to expand at rates of around 27.0%. The percentage composition of imports remained as follows: capital goods represented 36% of total import value, raw materials 43%, and consumer goods 21%.

In general, the economy continued to benefit from three main factors in the third quarter: i) ample credit availability, despite a 2 pp rise in the Bank's benchmark rate in 2007: credit continued to expand strongly, though at a slower pace (see Chapter II); ii) agents' high confidence in the economy, underpinned by better employment conditions, as suggested by the full-year decline in the nationwide unemployment rate; and iii) favorable external conditions, thanks notably to robust trade with Venezuela and capital inflows in the form of foreign direct investment.

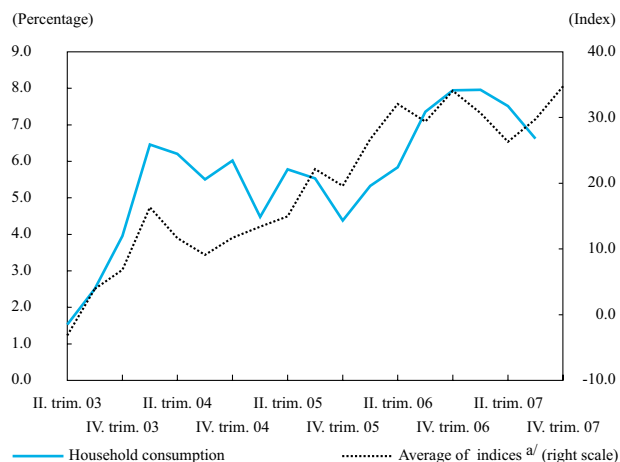
Given the conditions described above and actual figures to September, full-year GDP growth is estimated to have been in the range of 6.7% and 7.3% with a most probable scenario of 7.0%. These estimates are somewhat higher than forecast in the previous *Information Report*, which gave the most probable projection as 6.7%.

Table 4
Real Annual GDP Growth, By Type of Spending: 2004-2007
(Percentage)

	2004	2005	2006	2007
Final consumption	4.8	4.9	5.6	5.9
Households	6.0	5.0	6.6	7.0
Government	1.1	4.3	2.1	2.4
Gross capital formation	15.6	18.7	26.9	20.1
Gross fixed capital formation (GFCF)	15.0	18.9	18.2	18.6
GFCF excl. Civil works	22.0	16.7	18.4	16.9
Civil works (7.9)	28.7	17.2	25.4	
Inventory change	28.0	13.8	202.6	31.7
Domestic demand	6.6	7.4	9.8	9.2
Total exports	10.0	7.0	7.8	6.0
Total imports	19.8	19.9	20.8	15.1
GDP	4.9	4.7	6.8	7.0

Source: DANE; calculations by Banco de la República.

Graph 13
Household Consumption and Fedesarrollo's Consumption Survey



a/ Average of Fedesarrollo's consumer-confidence, consumption-Expectations and economic-conditions indices (ICC, IEC and ICE, respectively).

Source: Fedesarrollo; calculations by Banco de la República.

The revised range is still consistent with a moderation of fourth-quarter growth in economic activity, particularly in household consumption, judging by recent trends. As regards investment, building activity is expected to have grown at a low annualized rate but not contracted, as it had in the two quarters before according to information from the National Statistics Agency (DANE) (Table 4).

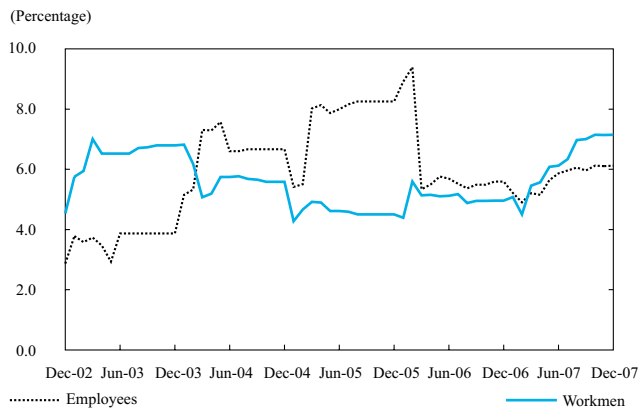
The upside risks to the forecasts have increased, for various reasons:

1. Fourth-quarter government consumption may have been underestimated, given that the second quarter of 2007 was a period of elections and the end of the term of office of local administrations. Note that the point forecast envisages a year-end growth lower than the third quarter's.
2. Good behavior of construction indicators, such as licenses and cement shipments to November, may suggest a more robust building-construction sector than foreseen in the central forecast.
3. Fedesarrollo's confidence indicator, which correlates closely with household-consumption behavior, rose faster in the fourth quarter relative to the third. This may anticipate higher private consumption than envisaged (Graph 13)

2. Wage costs and labor market

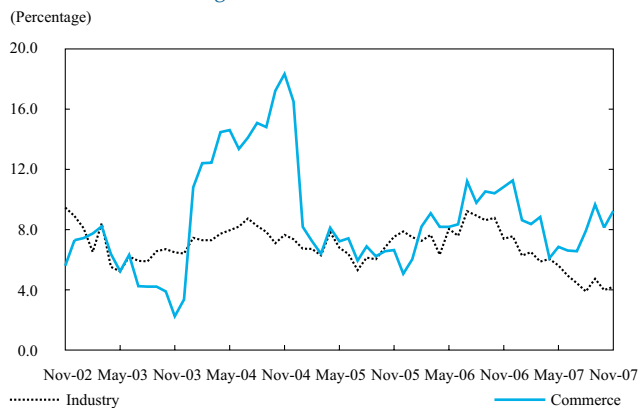
Information on wage-cost movements in the second half of 2007 is ambiguous. Wage increases accelerated in construction and especially commerce but displayed the opposite behavior in industry (Graph 14). The retail-sales survey showed nominal pay in this sector growing by 9.2% in November, a high rate compared with the inflation target. By contrast, industry, which is less labor-intensive than construction or commerce, reported a wage growth of only 4.2%, similar to the target rate. By degree of qualification, the construction

Graph 14
A. Heavy Construction Wage Index, Annual Change



Note. Workmen: foremen, workmen, skilled workers and operators; Employees: directing engineers, assistant engineers, Warehousemen, accountants and guards.
Source: Heavy Construction Cost Index (ICCP) - DANE.

B. Nominal Wage Costs in Industry and Commerce, Annual Change



Source: DANE's Monthly Retail-Trade Sample and Monthly Manufacturing Sample.

survey suggests that pay for skilled manpower was being adjusted at a faster pace than for low-skilled labor and exhibiting a stronger accelerating trend than the latter.

DANE's September-November household survey reveals substantial job creation: the employment rate rose by 3.2% nationwide and by 3.5% for the thirteen major cities—significant increases considering the history of the two series. This development reflects a highly favorable movement in labor demand from production firms, consistent with the strength of the economy, but it may overstate the number of jobholders as a result of methodological changes made to information gathering in 2006 and again at the end of 2007.

On figures to December, the increase in jobholders (8.1%) offset the rise in the participation rate, allowing the unemployment rate to drop substantially, down to record lows for this decade: 9.8% nationwide, and 9.9% for the thirteen major cities (Table 5). The latest figures show high acceleration in self-employed workers and a slight slowdown in payroll workers.

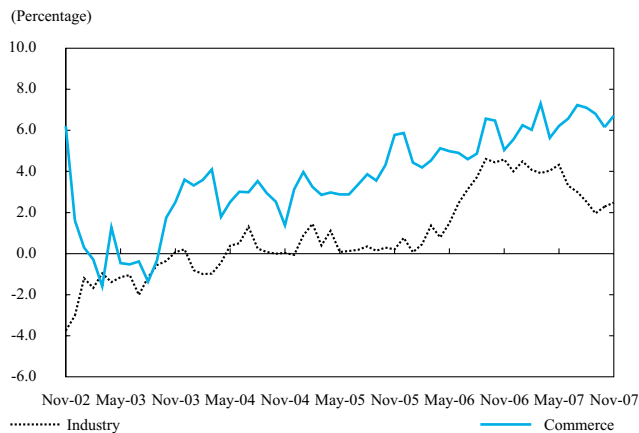
Other sources that evaluate labor-market behavior confirm the strength of second-half employment: thus, the sector survey shows employment in commerce expanding by over 5% a year for two years running,

Table 5
Labor-Market Indicators

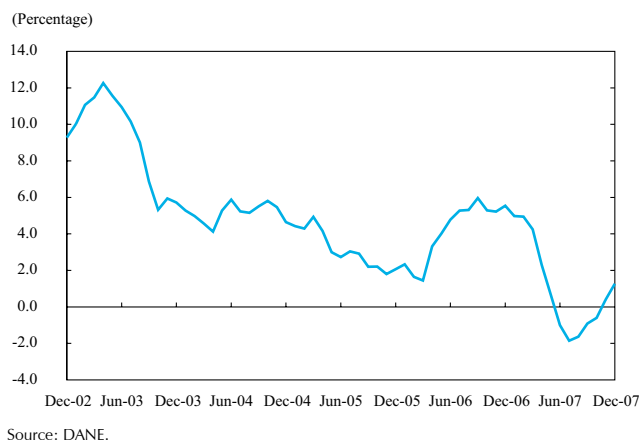
	Quarter: October - November - December					Difference 2006 to 2007
	2003	2004	2005	2006	2007	
Global participation rate						
Nationwide	63.0	60.7	60.8	56.8	59.0	2.2
Thirteen cities	65.4	63.1	63.5	59.6	61.5	1.9
Employment rate						
Nationwide	54.8	53.4	54.6	50.3	53.2	2.9
Thirteen cities	55.8	54.5	55.8	52.3	55.4	3.1
Unemployment rate						
Nationwide	13.1	12.1	10.2	11.4	9.8	(1.6)
Thirteen cities	14.8	13.7	12.1	12.3	9.9	(2.4)

Source: DANE, Great Household Integrated Survey (GEIH).

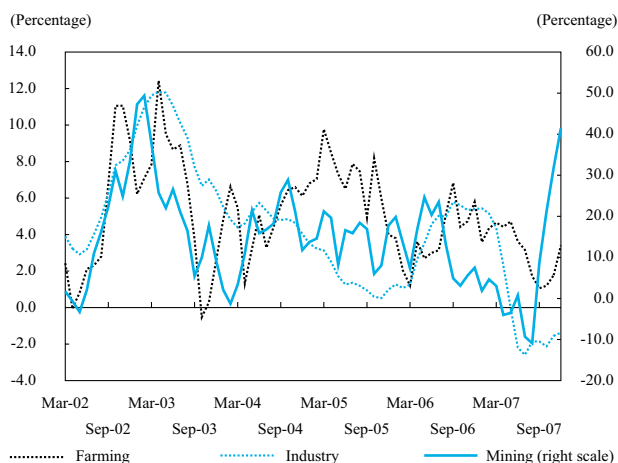
Graph 15
Employment in Industry and Commerce
Annual Change



Graph 16
Headline PPI, Annual Change



Graph 17
PPI by Component, Annual Change



and industrial employment growing by over 2%, annualized rate, for six quarters in a row (Graph 15).

Available indicators of labor productivity exhibit a trend break lasting over the second half, after several years of substantial growth. Thus, cyclically-adjusted productivity growth has begun to approach its historical average. This new behavior is the result of stronger employment growth relative to output. Note that labor productivity in Colombia has risen to an annual average of 4.4% in industry since 1980 and 4.3% in commerce since 2000. It goes without saying that these figures are specific to commerce and industry and do not necessarily hold for the rest of the economy.

The current situation is thus characterized by strong employment and by above-target wage increases for a considerable number of workers, all this at a time when productivity is moderating. These developments make it more likely that the labor market will be tight in 2008, maybe more than at any time since the start of the decade. Materialization of this risk will depend on how robustly the economy grows and how much it continues to drive employment.

3. Other costs

The headline producer price index (PPI), as an indicator of non-wage costs, accelerated over the quarter, albeit from low levels, rising from -0.9% in September to 1.3% in December (Graph 16). Producer inflation remained in negative territory during much of 2007 thanks to the exchange-rate appreciation, which offset commodity and oil price pressures. But later in the year these pressures began to mount, as the peso's appreciation abated and world prices climbed faster.

The PPI by economic activity reveals strong acceleration in mining prices owing to the oil-price rise, and some quickening of pace in farming PPI, probably because of higher world prices (Graph 17).

Breakdown of the PPI by origin of goods shows the past three months' acceleration in producer inflation to have been largely attributable to prices of domestic

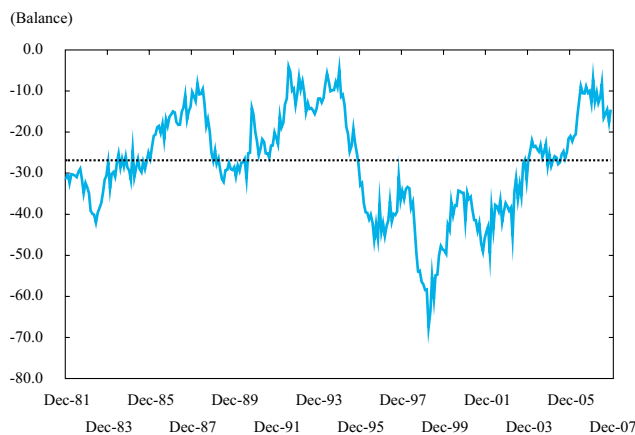
Capacity utilization remained high in 2007 but showed a slightly declining trend.

raw materials, especially oil, natural gas, produce of animal origin, and transport equipment

4. Excess production capacity

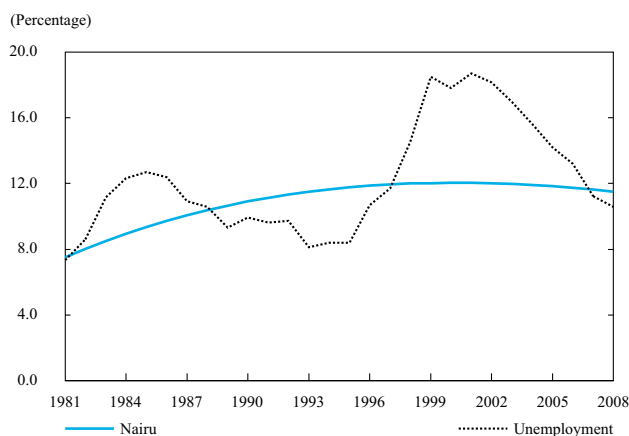
Various indicators suggest that economic activity slowed a little in the fourth quarter of 2007, compared with strong growth in the three quarters before. They further suggest that capacity utilization declined at the same time but remained at historically high levels. Graph 18, for example, shows that businessmen felt their companies faced fewer problems in meeting expected demand in the second half of 2007 than they did at the beginning of the year or end of 2006. Simultaneously, the industrial capacity utilization indicators of ANDI (major national business association) and Fedesarrollo (major research institute) have dropped slightly in recent months, in comparison with historical peaks recorded in 2006.

Graph 18
Expected Demand in The Following 12 Months, Against Installed Capacity



Source: Fedesarrollo; calculations by Banco de la República.

Graph 19
Unemployment Rate and Nairu



Source: DANE; calculations by Banco de la República.

Aggregating these and other variables by the principal-component method confirms the declining trend in industrial capacity utilization in 2007. For example, indicators such as manufacturing overtime and retail sales stopped rising or accelerating. Accordingly, this *Report's* central scenario assumes that capacity utilization will decrease slightly in 2008, as it did in 2007. However, this forecast has a considerable range of uncertainty, given that the relevant indicators have been highly variable in the past.

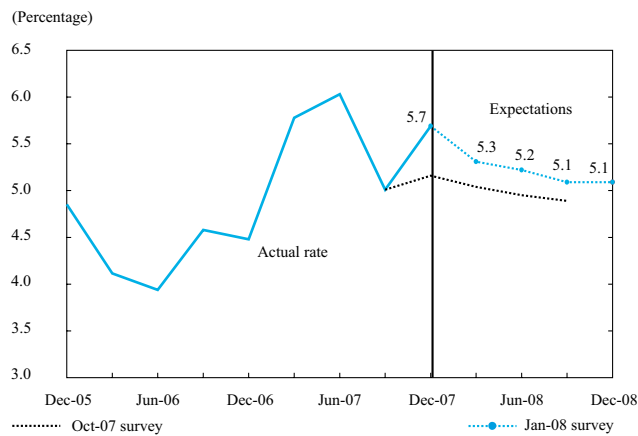
While the intensity of capital utilization has declined somewhat, the intensity of labor utilization has increased, as suggested by strong expansion in employment and the unemployment rate's fall to a single digit in recent months. This trend, if sustained, could result in a tighter labor market and ultimately put pressure on wages (Graph 19).

In short, capital utilization is expected to become less intensive in 2008 than it was in 2007, while labor utilization becomes more intensive. This projection, together with expected economic growth (see Chapter III), means that the share of total factor productivity in GDP change will be smaller.

The Bank's models suggest that the output gap may have averaged 2.8% in 2007, slightly higher than projected in the September *Report*. For 2008, the models see the output gap tending to narrow and thus allowing inflationary pressure from demand to begin to abate.

Estimation of a high positive output gap is consistent with the rise of the different measures of core inflation from May 2006 through much of 2007 and with nontradable inflation overshooting the Board's target range in 2007. Hence, high demand growth over the past several quarters may be said to have generated inflationary pressures that were not fully contained by either productivity gains or strong investment expansion in previous years.

Graph 20
Inflation Expectations Three, Six, Nine and Twelve Months Ahead



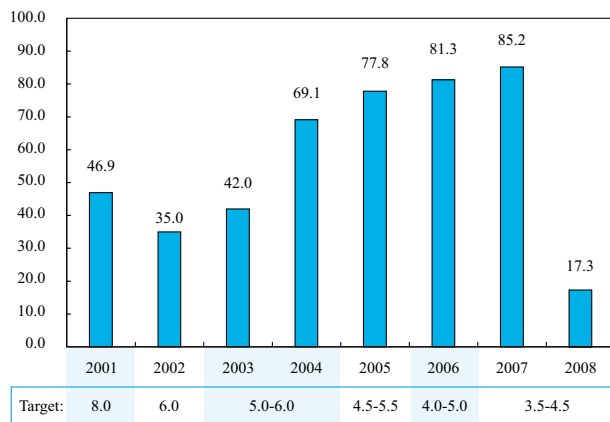
Source: Banco de la República, quarterly expectations surveys.

5. Inflation expectations

Inflation expectations tended to rise in the last months of the year, following increases in actual inflation. According to Banco de la República's monthly survey of banks and dealer-brokers, at the start of January 2008 twelve-month-ahead expectations stood at 4.7% (against 5.0% recorded in September), higher than this year's target-range.

The Bank's quarterly survey shows twelve-month-ahead expectations falling from 5.7%, on data collected in October, to 5.1% according to the survey conducted at the start of January 2008. In general, expectations at different horizons rose by 20-30 bp relative to the October survey (Graph 20). The January survey suggests that the inflation target's credibility was low at the start of 2008: with only 17% of respondents believing it could be met, it was lower than in previous years (Graph 21).

Graph 21
Inflation-Target Percentage Credibility, 2001-2008
(Surveys Conducted In January Every Year)



Source: Banco de la República, quarterly expectations surveys.

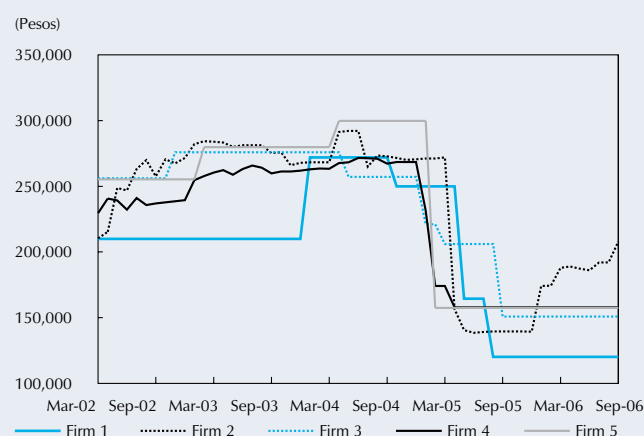
On the whole, inflation expectations remained high over much of 2007, overshooting the year's targets. Should this situation persist in early 2008, it could substantially hinder the task of reducing inflation in the quarters ahead. For it would mean, among other things, that the 2007 rise in inflation, caused in part by transitory factors unrelated to monetary policy, was becoming longer-lasting.

Box 1 HOW DO COLOMBIAN FIRMS SET PRICES?

Juan Manuel Julio*

For various reasons, firms do not adjust the prices of their goods and services immediately after the occurrence of unexpected changes in supply or demand. This lack of sensitivity is called *nominal price rigidity*. Graph B1 shows the price paths of five firms that produce a particular good from the producer price index (PPI). It will be seen that: 1) the various firms hold their prices steady over different lengths of time, implying that there are few price changes in any (average) month; 2) price reductions are surprisingly frequent; 3) large percentage changes are frequent; and 4) price changes tend not to be synchronized.

Graph B1
Price Sequences of Five Firms Producing a Particular Good



Source: Banco de la República.

The existence of price rigidities is recognized as one of the more important assumptions in designing models for conducting monetary policy. Theoretical studies have shown that the degree of price rigidity affects the reaction of macroeconomic variables to supply and demand innovations and is therefore a major source of *monetary policy non-neutrality*.¹ Likewise, price rigidity has a major impact on *inflation persistence*, a key determinant of monetary policy,² and on the persistence of other macro variables.

* This Box is based on a study by Julio and Zárate, “Price Setting Behavior in Colombia: Evidence from PPI micro data” (mimeo), Banco de la República, January 2008.

- 1 Non-neutrality of monetary policy refers to the fact that monetary policy has short- and medium-term effects on real variables such as GDP and unemployment.
- 2 Inflation persistence has to do with the dynamic behavior of inflation with respect to an “equilibrium” level, after the occurrence of an innovation.

Price rigidities are formulated in monetary-policy models in two different ways: using “time-dependent” or “state-dependent” rules for setting prices. In time-dependent rules, the duration or frequency of price changes is exogenous to the state of the economy, and price rigidities result from the absence of synchronization in making price changes. In state-dependent rules, the likelihood of price changes is endogenous to the state of the economy, and price rigidities stem from the existence of costs involved in adjusting prices.

The characteristic and determinants of price-setting rules that specify rigidities constitute microeconomic fundamentals for designing monetary-policy models.

Using price reports relied on in calculating the Colombian producer price index, a study has been conducted on how Colombian firms set their prices from June 1999 to October 2006. A summary follows of the study’s major findings.

Colombian producers change their prices with much the same frequency as a set of six European Union countries, i.e. they do it on 20% of the basket each month, which amounts to saying that PPI prices remain constant for an average of 5.5 months. This finding implies that, if inflation expectations are equally anchored in Colombia as in the EU and the degree of indexation is the same, the cost of reducing inflation by the same amount would be similar in the two areas.³

The PPI price-setting rule is mainly concerned with time factors, coupled with a small but significant state component that makes a bigger contribution in the case of locally manufactured and consumed goods. Consequently, time-related factors, such as the existence of stated-duration agreements and the timing of the minimum-wage adjustment, appear to be more important than factors relating to the state of the economy in setting new prices, though the latter too may have an impact.

Accordingly, a very important factor in explaining price rigidity is the absence of synchronization in price changes, but the costs associated with such changes do not seem to be important. There is however some evidence of seasonal synchronization, possibly associated with the timing of minimum-wage increases.

3 However, considering that over the sample period inflation in the six EU countries was less than 2.5% and in Colombia 7%, then, if it is a fact that in Colombia rigidity increases as inflation falls, it follows that in particular circumstances prices in Colombia will be more rigid than in the EU when inflation reaches around 3%.

The Colombian PPI's price-raising frequency is slightly higher than its price-lowering frequency, i.e., there is a *slight* downward rigidity. But no evidence was found of any *strong* nominal downward rigidities. The existence of the *slight* downward rigidity justifies the fact that the Banco de la República has set a long-term inflation target of 3%, which will allow (real) relative prices to fall if necessary to ensure this target's stability in the long run. The non-existence of any strong nominal downward rigidities implies that for Colombia the welfare costs of reducing inflation to levels around the long-term target are not "excessive."⁴

There was however a surprisingly high frequency of price reductions, given the actual level of inflation during the sample period: 7%.

Moreover, strong sectoral differences were found in the way firms set their prices; they were associated with the origin and level of manufacture of the goods. The prices of imported goods were more flexible, both in absolute terms and in terms of downward adjustment, compared with locally produced and consumed goods. Likewise, the higher the level of manufacture of locally produced and consumed goods, the more rigid their prices both in absolute terms and in terms of downward adjustment. Furthermore, the state-dependent component was larger for locally produced and consumed goods than for the rest of the basket. Hence, imported goods, and also locally produced and consumed

4 At least in comparison with the six EU countries with which we have compared our findings.

goods of a low level of manufacture responded faster to monetary-policy stance than locally produced and consumed goods of a higher level.

We found that price rigidity increased as inflation fell, which implied that inflation was directly related to its persistence.⁵ The sustained lowering of inflation in the nineties thus reduced the power of firms over their prices. For their cost expectations were anchored downward, which helped to keep inflation on a declining trend. However, the benefits observed since that period—falling inflation and growing GDP—may very easily disappear if monetary policy or expectations change.⁶

5 Our measures of price-change frequency over the period indicate that rigidity is inversely related to the level of inflation. Moreover, disregarding differences between baskets, our results are consistent with previous studies on Colombia. For example, Jaramillo and Cerquera (1999) conclude that, on average, consumer prices remained steady for two months, in a period when the CPI inflation was 28%; Espinosa, Jaramillo and Caicedo estimate an average duration of four months, in a period of 25% inflation; and our results show a duration of 5.5 months, in a period of 7% PPI inflation. (A. Espinosa, C. Jaramillo and É. Caicedo, "Caracterización del ajuste macroeconómico de precios en Colombia" *Revista del Banco de la República*, No. 890, 2001; C. Jaramillo and D. Cerquera, "Price Behavior in an Inflationary Environment: Evidence from Supermarket Data," Borradores Semanales de Economía, No. 138, Banco de la República, 1999.

6 See J. Taylor, "Low Inflation, Pass-Through and the Pricing Power of Firms," *European Economic Review*, Vol. 44, num. 7, pp. 1389-1408

II. FINANCIAL MARKETS

Credit constraints continue to increase in the United States, reducing the Fed's capacity to smooth a possible economic contraction by reducing interest rates.

Portfolio capital flows to emerging economies will depend on interest-rate differentials with the developed countries and on changes in international risk aversion.

World financial markets have become more volatile, moderately heightening risk perception about long-term emerging foreign debt. The Colombian equity market has been affected, but to a lesser extent than in previous periods of financial stress.

In Colombia real interest rates for consumer and commercial loans are back below their historical averages for 1997 to date.

The financial system's loan portfolio continues to moderate its real growth but continues to rise apace, by 2.5 times the economy's real growth.

A. EXTERNAL CONTEXT

In the fourth quarter of 2007, major banks and investment funds in the United States and other developed economies continued to reflect large losses on their balance sheets, as a result of deterioration in the housing market, making the financial crisis more evident. Although economic-activity indicators (especially about the labor market) in the world's biggest economy still did not signal a possible recession, various surveys of consumer expectations and business confidence showed that the deceleration might be stronger than expected.

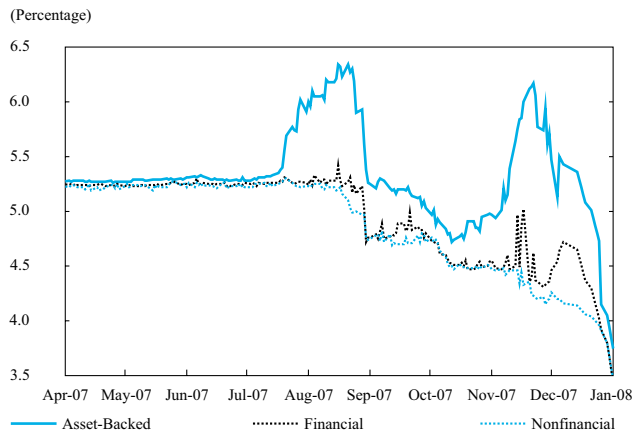
Action by the Fed has eased liquidity needs but not credit constraints.

The Federal Reserve therefore reduced its benchmark rate twice in the fourth quarter, each time by 15 bp, bringing it down from 4.75% to 4.25%. It also provided term auction facilities for more efficient injection of liquidity into the

interbank market. The central banks of the other developed economies followed suit with similar policies to irrigate liquidity into markets.

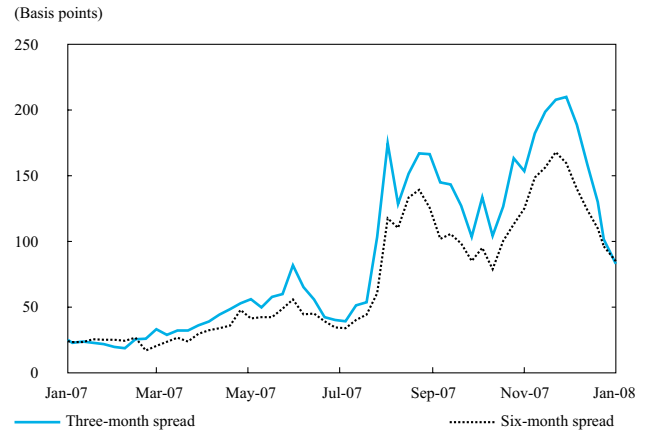
Action by the Fed and other central banks eased liquidity constraints in the market. In effect, interest rates on commercial paper fell (Graph 22-A), the difference between Libor and short-term US Treasuries narrowed (Graph 22-B), and there was a pick-up in trading amounts of asset-backed commercial paper. Subsequently, in the first weeks of 2008 the likelihood of a US recession was heightened by a number of news releases, particularly about consumer dynamics. First, although the financial system's liquidity problems were reduced by the injection of money at lower interest rates, constraints on corporate and consumer credit intensified, especially in the housing sector, where even prime borrowers saw their credit conditions restricted (Graph 23, A and B).

Graph 22
A. US 30-Day, AA, Commercial Paper Rates



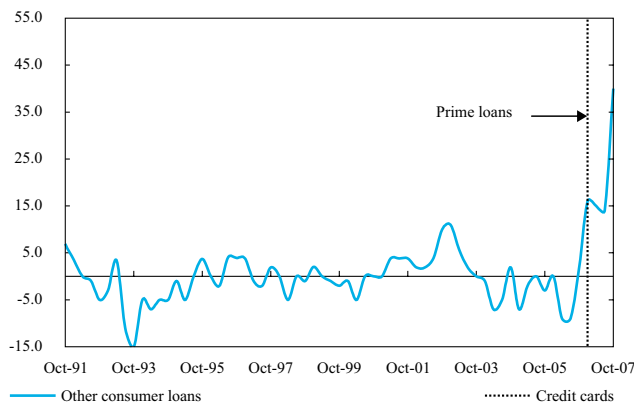
Source: Federal Reserve.

B. Differential between Libor and Short-Term US Treasury Rate



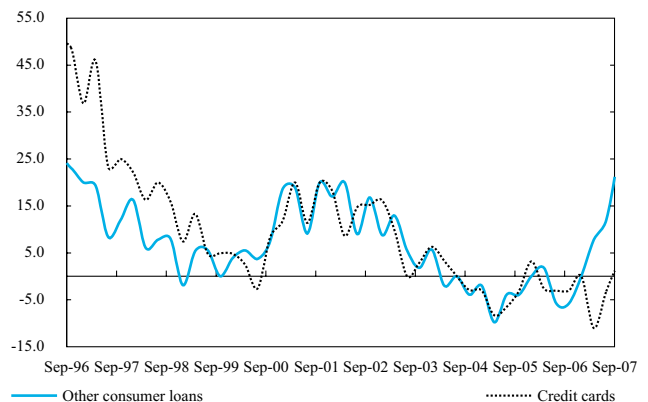
Graph 23
Net Percentage of Respondents Referring to Tighter Standards of:

A. Housing Loans



Note: Starting from 2007, the Fed has been reporting this question separately, distinguishing between subprime, prime and nontraditional credit. In this Graph, dovetailing with prime credit is shown for the four quarters of 2007. Replies of tight subprime and nontraditional

B. Consumer Loans

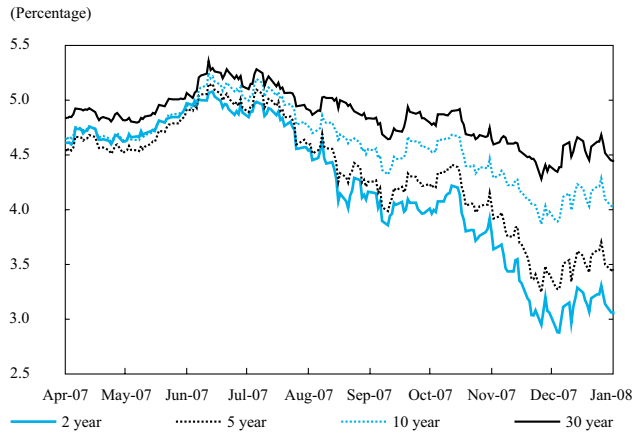


credit standards are about 60%, which means that the Graph underestimates difficult access to credit.

Source: Federal Reserve.

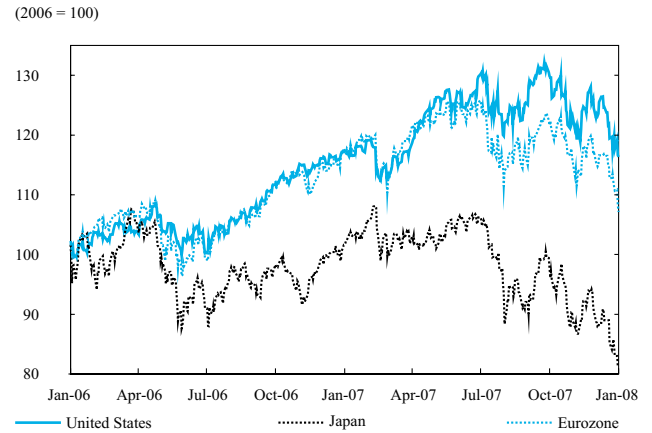
Graph 24

A. US Bond Rates



Source: Datastream.

B. Stock-Exchange Indices

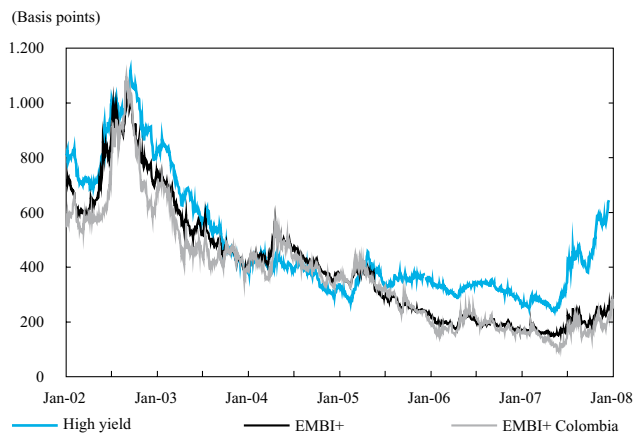


Moreover, fresh results from labor-market statistics revealed deterioration, and oil prices kept on climbing. In addition, fears of recession in the world's biggest economy caused share prices to fall, prompting investors to take refuge in safe assets such as US Treasuries (Graph 24, A and B). This latter development, besides intensifying the financial crisis, may affect the disposable income of households, to the detriment of their future consumption. This state of affairs led the Fed to reduce its benchmark rates again in January 2008, this time by 125 bp (from 4.25% to 3.0%), a rate-cut size not seen since August 1982.¹

The above developments have so far been reflected in a higher risk perception of our public debt, compared with what is regarded as risk-free debt, although this reaction is smaller than in previous episodes (Graph 25-A). In effect, since the

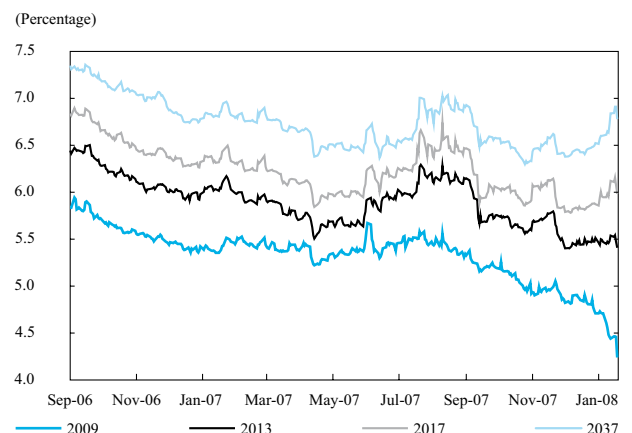
Graph 25

A. EMBI+ and Spread



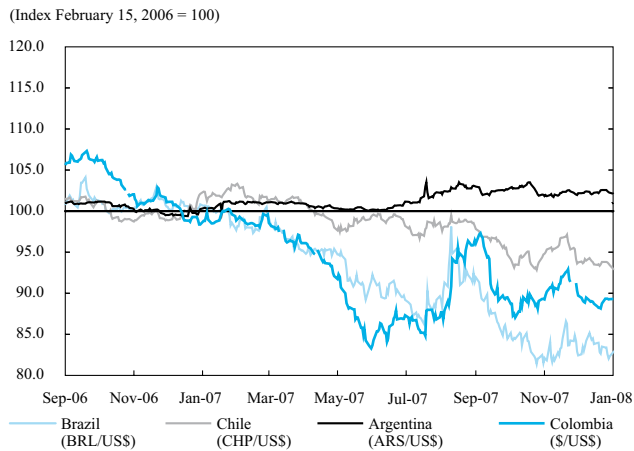
Source: Bloomberg.

B. Colombian Public Foreign-Debt Dollar Securities Rates



¹ In 1982, the Fed had reduced its benchmark rate from 12.5% to 9% in the space of a month. Percentagewise, that reduction (30%) was similar to the 75 bp rate cut made by the Federal Reserve at an extraordinary meeting on January 22, 2008.

Graph 26
Nominal Exchange Rates of Latin American Currencies
Against the Dollar



Source: Datastream.

last quarter of 2007, long-term public dollar external debt securities have seen their rate differential rise in relation to credit risk free assets. By contrast, the interest rate on such sovereign securities maturing in the short term (2009 and 2013) have fallen, reflecting that at least in this time horizon investors regard these assets as a low-risk alternative (Graph 25-B). Similarly, currency appreciation in emerging countries indicates there are still no discernible signs of massive capital outflows, to developed economies, in search of safe assets. A case in point is that the Colombian exchange rate stayed around 2000 pesos to the dollar in the fourth quarter of 2007, giving a nominal appreciation of 10% from December 2006 to December 2007 and an average of 12% (Graph 26).

Lastly, if the balance sheets of large investment funds continue to reflect heavy losses in a context of economic deceleration, the credit crunch will become protracted, making it more difficult for monetary policy to smooth output dynamics. This scenario will heighten uncertainty about the vulnerability of emerging economies, keeping markets' risk aversion at elevated levels.

B. FINANCIAL MARKETS

In November 2007, the Board of Directors raised the Bank's benchmark rate by 25 bp, to 9.50% and held it there at the January 25, 2008 meeting. Despite the latest monetary-policy measures, average deposit and lending rates fell in December. In addition, growth in the credit portfolio continued to decelerate, though it still far outpaced nominal GDP expansion.

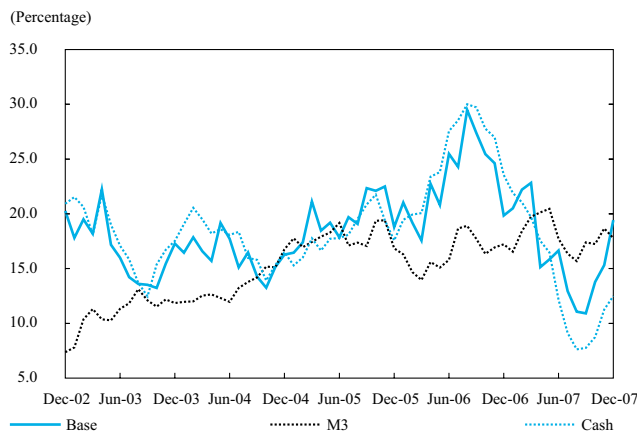
As foreseen in the September 2007 *Inflation Report*, in late November and early December liquidity increased substantially in the financial market. One cause of the increase was the maturity of TES securities on November 9, with the government paying out some 5 trillion pesos from its deposits at the Banco de la República. The Bank conducted contraction auctions to sterilize this temporary supply of liquidity, but demand for its contraction deposits was not enough to offset the higher supply of money in the market, resulting in falls in the main market interest rates.

Market liquidity conditions may be different in the first quarter of 2008. Government deposits at the Bank are likely to return to much the same level as their average for 2007 (6,428 tr. pesos), in which case the Bank would continue to be a net lender to the financial system. In this scenario, the credit channel would become a more powerful transmission mechanism, and any monetary-policy measure would be transmitted more easily to market interest rates.

1. Monetary aggregates

Monetary aggregates grew faster in the final quarter of 2007. The monetary base ended the year with an annual growth of 19.4%, up from 15.3% in November and 10.9% in the previous quarter. This trend is explained by higher demand for bank reserves, resulting in part from the change in the reserve-requirement rate,² and by recovery in demand for cash, which expanded by 12.5%, much the same rate as the estimated nominal GDP growth for 2007 (Graph 27).

Graph 27
Monetary Aggregates, Annual Growth



Source: Banco de la República.

The broader monetary aggregate, M3, expanded by 2 pp, from a growth rate of 15.7% in August to one of 17.8% in December. Some 74% of this expansion came from a rise in deposits (reservable liabilities), thanks largely to a pick-up in CDs (Graph 27).

TES securities worth 5 tr pesos matured on November 9, injecting liquidity into the economy and favoring demand for bank deposits. To meet this obligation, the government used part of its deposits at the Bank, which it reduced in November to a mean of 3,649 bn pesos and further reduced in December to a mean of 3,263 bn pesos, compared with a full-year average of 6,428 bn pesos for 2007. This development helped to make the Bank a net debtor of the financial system for a little over a fortnight, during which time interest rates fell despite the opening of contraction deposits.

Year-end 2007 also saw a fall in the price of domestic public debt, a drop in equity values, and a wider differential between Colombian and international interest rates. These factors contributed to the rise in local demand for fixed-income securities, such as short term CDs issued by the financial sector.

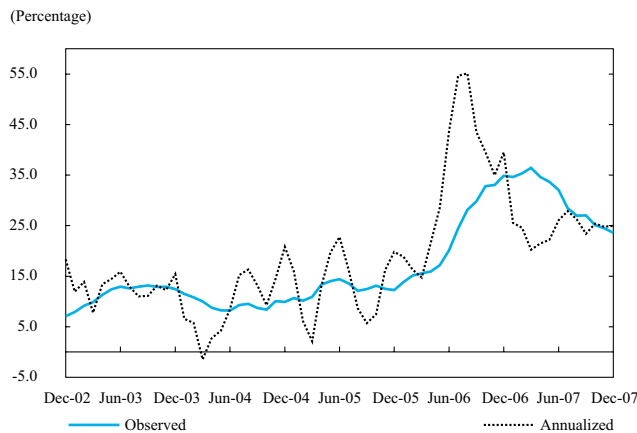
The composition and behavior of reservable liabilities in the first quarter of 2008 will depend on movements in different variables. First, trend changes in credit demand and investment prices may alter the financial system's liability (deposit) needs. Agents' preferences for domestic financial assets may change for reasons including the widening spread between domestic and foreign interest rates, thereby affecting the behavior of reservable liabilities.³ Lastly the government's cash flow at the Bank and its first-quarter spending plan will determine the behavior of financial-system deposits.

Various factor favored demand for CDs in late 2007.

² See the Banco de la República's June 2007 *Inflation Report*, p. 40.

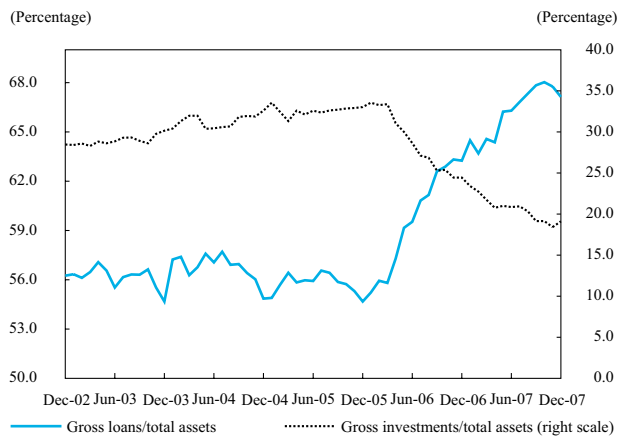
³ Depending on the evolution of risk perception.

Graph 28
Annual Growth in Gross Local-Currency Loan Portfolio



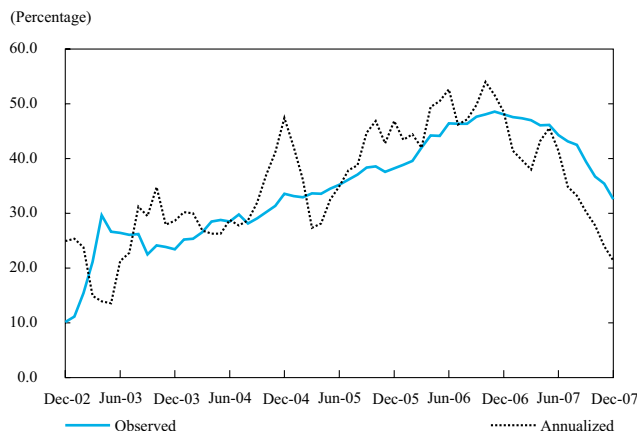
Source: Financial Superintendency; calculations by Banco de la República.

Graph 29
(Gross) Loans and Investments / Total Assets



Source: Financial Superintendency; calculations by Banco de la República.

Graph 30
A. Gross Consumer-Loan and Microcredit Portfolio



2. Credit

The financial system's gross loan portfolio continued to moderate its pace of growth, registering 23.6% in December. Similarly, starting from the second quarter of 2007, the smoothed series consistently showed growth stabilized at rates above 20%⁴ (Graph 28). In real terms, the rise in the loan portfolio was 17.8% at year's end, almost 2.5 times the expected real GDP growth for 2007.

As a share of credit institutions' assets, the loan portfolio⁵ was at historically high levels, while investments continued on a declining trend, though still without falling to pre-2000 lows (Graph 29). It is therefore feasible that, if the loan portfolio continues to show strong growth, such growth will be financed through deposit expansion rather than investment liquidation.

Breakdown of credit expansion by destination reveals over-20% growth in all portfolios except mortgage loans. The smoothed series reflect a deceleration in consumer loans, relative stability in mortgages, and a pick-up in commercial credit. The acceleration in commercial loans in pesos may be partly attributable to replacement of external loans by internal ones, which may have resulted from the Bank's imposing a deposit requirement on external borrowing (Graph 30).

Financial deepening, measured as the ratio of loans to GDP, has not yet reached its historical peak and suggests that credit may still grow apace.

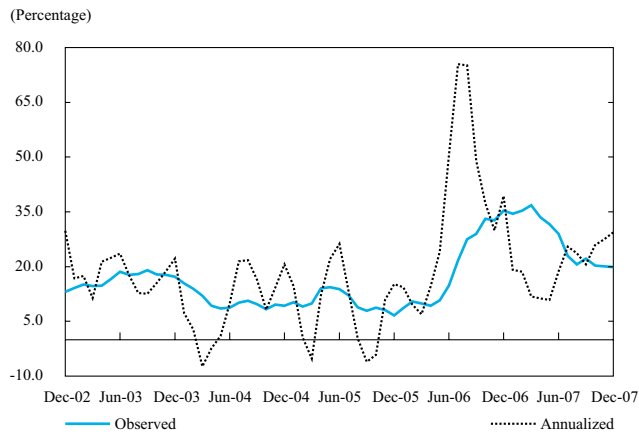
Consumer and mortgage loans together as a proportion of GDP are a proxy for the size of household debt. Graph 31 (B and D) shows that in December 2007 this indicator was around 15%, some 4 pp lower than the peak reached in 1997. Note, however, the sharp expansion in consumer loans, which lifted their share

4 Annualized change in the loan portfolio is obtained by first constructing a monthly average from weekly data, then applying a 3-month moving average to the monthly series, and using the resulting series to estimate a monthly change, which is annualized.

5 Total of local and foreign currencies.

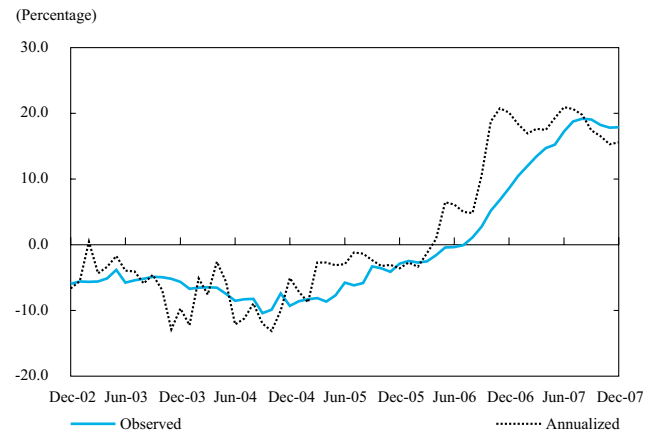
Graph 30 (continue)

B. Gross Local-Currency Commercial Portfolio



Source: Financial Superintendency; calculations by Banco de la República.

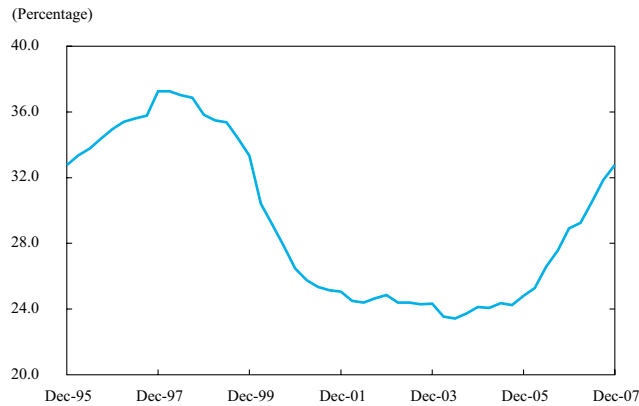
C. Gross Adjusted Local-Currency Mortgage



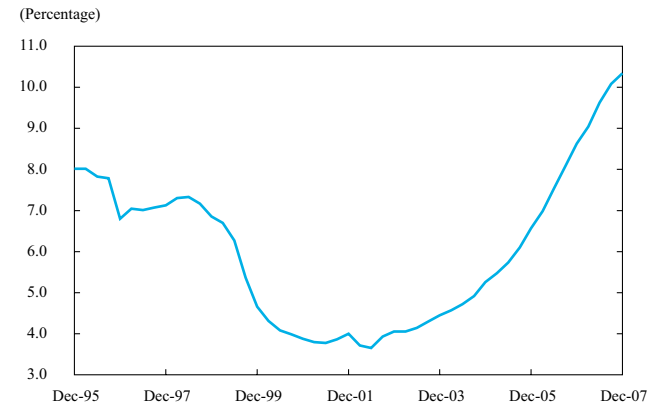
Graph 31

Loan Portfolio / GDP (Quarterly)

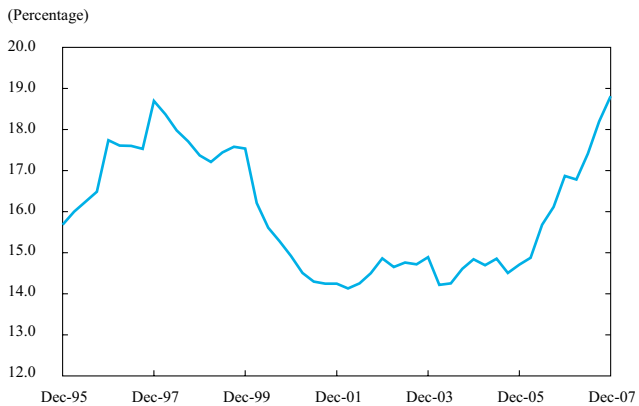
A. Overall Loan Portfolio / GDP



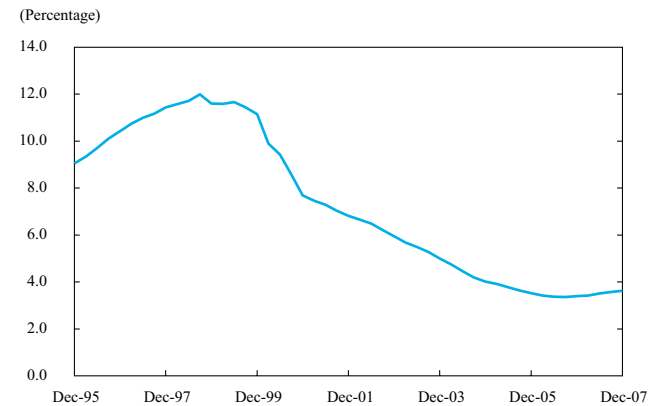
B. Consumer Loans / GDP



C. Commercial Loans / GDP



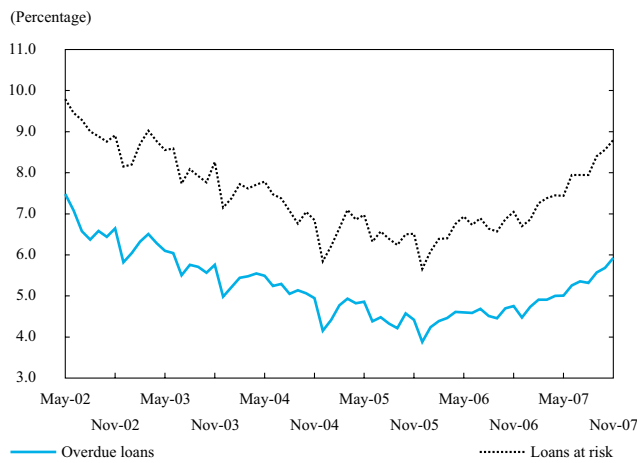
D. Mortgage Loans / GDP



Source: Financial Superintendency; calculations by Banco de la República.

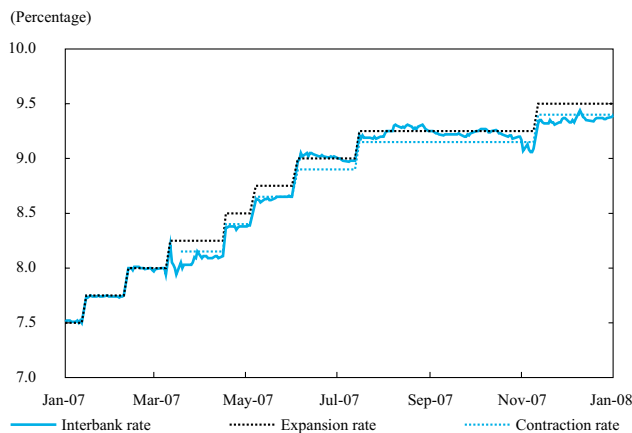
of GDP to a record peak in December. Having less collateral than other types of credit, consumer loans continue to show mounting risk and delinquency trends (Graph 32).

Graph 32
Consumer-Loan Portfolio



Source: Financial Superintendency; calculations by Banco de la República.

Graph 33
Interbank and Intervention Rates



Note: Data to January 15, 2008.
Source: Banco de la República.

3. Interest rates

The Board of Directors at their meeting on November 23, 2007 raised the benchmark rate by 25 bp to 9.5%, making this the fourteenth increase since April 2006, and a total of 350 bp. In December 2007 and January 2008 the Board left the benchmark rate unchanged.

Despite the November rate increase, the end of the year saw a weakening of the credit channel. Ample liquidity pulled the interbank rate below the contraction rate (Graph 33), and average interest rates on savings, CDs and issue placements⁶ fell in December.

Starting from April 2006 the consumer interest rate reacted by climbing, the cumulative rise exceeding the total increase in the Bank's benchmark rate. A contributing factor to this greater reaction was the mounting usury rate. Despite the raising of the Bank's expansion rate in November, the consumer interest rate fell by 58 bp in December.

Rates on treasury and preferential loans rose by more than the Bank's cumulative increase and were up by 26 bp at year's end (Table 6). These are low-cost, short-term loans extended to corporate clients, which makes them more sensitive to changes in the Bank's expansion rate.

The interest rate on credit cards behaved in much the same way as corporate rates, though its stronger reaction is attributable to the inertia exerted on it by the maximum usury rate.

In the case of interest rates on ordinary and mortgage loans, only one half (172 bp) of the 350 bp adjustment to the Bank's expansion rate was transmitted to them. Both rates also fell in December 2007.

The behavior of nominal rates described above, coupled with higher inflation in recent months, broke the rising trend in real interest rates that began in early 2007. Rates on ordinary and consumer loans returned to levels below their historical averages since 1997 (Graph 34).

*Real interest rates fell
in December.*

6 According to Banco de la República methodology.

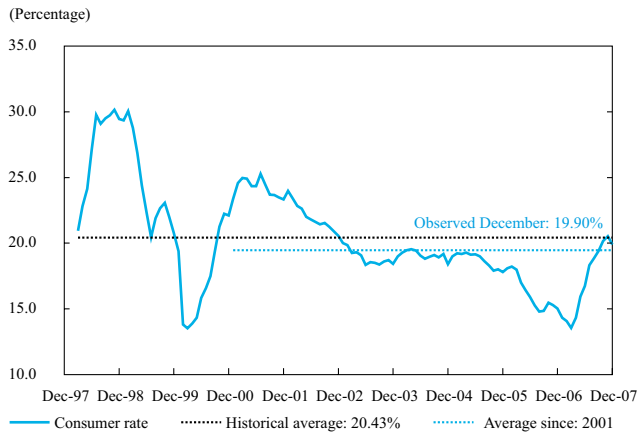
Table 6
Interest Rates

	Apr-06	Dec-06	Sep-07	Dec-07	Nominal		
					Monthly	Change Quarterly	Apr-06 to Dec-07
Deposit rates							
Ordinary savings	3.60	3.92	4.93	4.98	(0.08)	0.05	1.38
Cds	6.15	6.98	9.05	9.12	(0.11)	0.08	2.97
DTF	5.93	6.75	8.89	8.98	0.30	0.09	3.05
Lending rates							
Bdr lending rate	12.94	13.04	16.84	16.61	(0.21)	(0.23)	3.67
Consumer loans	21.14	19.57	24.34	25.21	(0.58)	0.88	4.08
Ordinary loans	15.36	14.24	17.63	17.08	(0.20)	(0.55)	1.72
Mortgage loans	13.88	13.02	15.61	15.60	(0.02)	(0.01)	1.72
Preferential loan	8.73	10.22	13.68	13.88	0.23	0.20	5.15
Credit cards	24.01	21.94	27.31	30.23	0.26	2.92	6.22
Treasury loans	7.68	9.58	12.76	12.62	0.26	(0.14)	4.94
Interbank rate	5.89	7.36	9.25	9.35	0.15	0.10	3.46
Expansion auction rate	6.00	7.36	9.25	9.50	0.19	0.25	3.50
Usury rate	25.13	22.61	28.51	31.89	0.00	3.38	6.77
	Apr-06	Dec-06	Sep-07	Dec-07	Real		
					Monthly	Change Quarterly	Apr-06 to Dec-07
Deposit rates							
Ordinary savings	0.07	(0.03)	0.78	0.53	(0.15)	(0.26)	0.45
Cds	2.54	2.92	4.73	4.50	(0.16)	(0.24)	1.96
DTF	2.32	2.70	4.58	4.35	0.23	(0.23)	2.03
Lending rates							
Bdr lending rate	9.09	8.75	12.22	11.66	(0.26)	(0.56)	2.57
Consumer loans	17.01	15.03	19.42	19.90	(0.62)	0.48	2.89
Ordinary loans	11.44	9.91	12.98	12.12	(0.26)	(0.86)	0.68
Mortgage loans	10.01	8.72	11.04	10.70	(0.08)	(0.34)	0.69
Preferential loan	5.02	6.04	9.18	9.05	0.16	(0.13)	4.03
Credit cards	19.79	17.31	22.28	24.71	0.19	2.44	4.92
Treasury loans	4.02	5.41	8.30	7.84	0.19	(0.46)	3.83
Interbank rate	2.28	3.29	4.93	4.71	0.09	(0.22)	2.43
Expansion auction rate	2.39	3.28	4.93	4.86	0.12	(0.07)	2.47
Usury rate	20.86	17.95	23.43	26.30	(0.07)	2.87	5.43

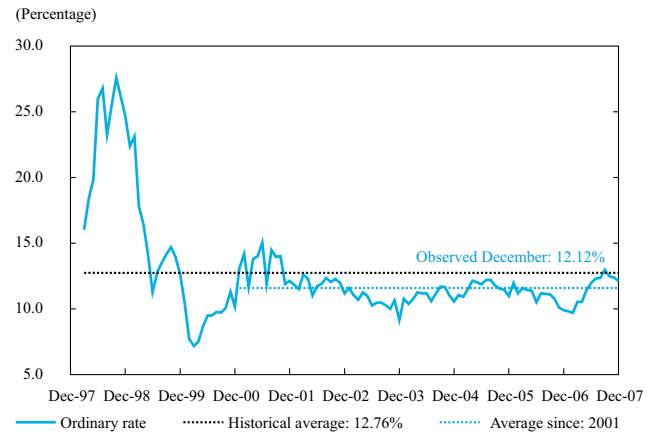
Source: Banco de la República.

Graph 34
Real Interest Rates A/

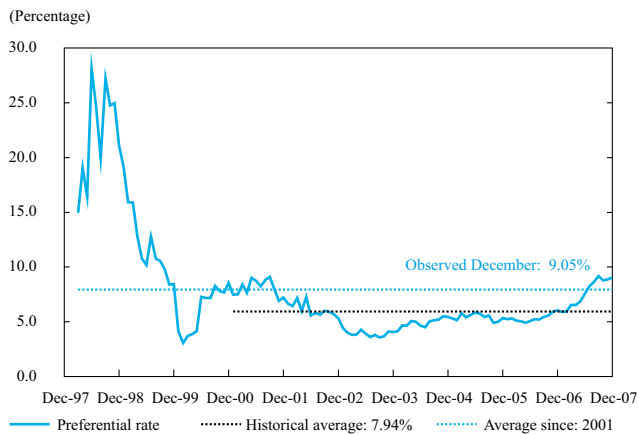
A. Consumer Loans



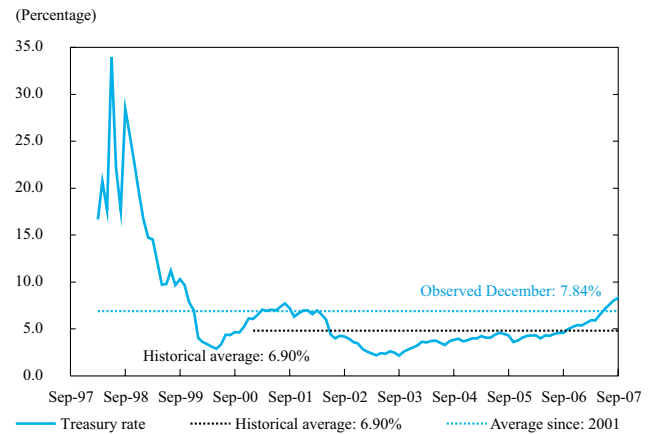
B. Ordinary Loans



C. Preferential Loans

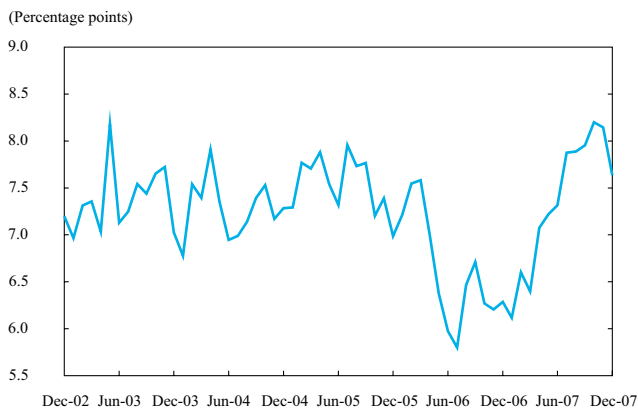


D. Treasury Loans



N.a.: Not available
a/ Available to November.
Source: Datastream and central banks.

Graph 35
Spread between lending and Deposit Rates: (BR) Total Lending Rate Minus DTF Rate



Source: Financial Superintendency; calculations by Banco de la República.

Another important interest-rate development was the widening spread since May 2007 between the (DTF) deposit rate and the lending rate (the Bank's aggregate rate). Despite a narrowing in December, the spread has remained wide, which may indicate that last year's marginal reserve requirements will not produce any further adjustments in lending rates (Graph 35).

In conclusion, the availability of resources upon maturity of TES securities at the end of 2007 probably helped to bring about a market-price adjustment, reducing interest rates and weakening the credit transmission channel. No shock of this kind is expected to occur in the first quarter of 2008, and any policy action may have a greater effect on market interest rates.

Box 2 INFLATION-TARGETING CRITERIA

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Rafael Puyana M.*

This Box offers a brief literature review of aspects to be taken into account in setting an inflation target. It does so by posing a number of questions that summarize the most relevant parameters for a central bank in establishing the process. These parameters are a guide that takes into consideration a country's circumstances and helps to define the most suitable target for successfully implementing inflation targeting.

1. What price indicator should be used in inflation targeting?

Inflation can be measured by different indicators, so choosing the right one is crucial in terms of the dilemma faced by a central bank between credibility and the ability to react to shocks. Bernanke and Mishkin (1997) and Bernanke *et al.* (1999) comment that most countries have chosen some version of the consumer price index (CPI), at times adjusted to exclude goods that can be highly liable to undergo supply shocks. The benefit of using an adjusted CPI is that it is clearly influenced by monetary policy, that is, it would allow of decision flexibility in the face of supply shocks. But it comes at the cost of loss of transparency, for the adjusted index is more complicated to estimate and interpret for the average public. The authors conclude that, regardless of which indicator is chosen, transparency requires that it be the only one used over the entire execution period of the target, in addition to being clearly defined and reproduced by other agents and, preferably, calculated by a body independent of the central bank.

Cufer *et al.* (2000) analyze the case of targets with or without regulated goods prices. They conclude that if an adjusted price index is used the bank must be clear about the impact of monetary policy on the unadjusted index, to better protect itself from failure to meet the target. They further maintain that a central bank using this index must pursue a strategy characterized by regular publication of projections and other series of releases.

2. What should the target level be?

There is consensus in economic literature that high inflation deteriorates economic growth, because of the costs to

wellbeing. López (2006) divides these costs into those caused by expected inflation and those resulting from unexpected inflation. Among expected-inflation costs he mentions the costs to wellbeing of lower real money holdings, the replacement of consumption by idleness, the spending of real resources in trying to evade the inflationary tax, lower returns on savings (which depresses annualized investment), and the redistributionary impact of inflation (between creditors and debtors, between fixed-income and variable-income receivers, and between the rich and the poor). Among costs attributable to unexpected inflation López mentions the negative effect on economic activity from an aversion to long-term contractual relationships, the difficulty in estimating investment returns (which depresses investment), the costs of looking for good prices when relative prices become distorted, and moral hazard in the financial market.

Many empirical studies have tried to quantify said costs to output for different countries, as an analytical tool in setting a specific inflation target. For example, for the United States: Feldstein (1996) estimated that a 1% rise in inflation would reduce GDP by 0.5%; Wolman (1997) calculated that bringing inflation down from 5% to 0% would increase GDP by 0.6%, while Lucas (1994) found that the increase in this case could vary between 0.3% and 1% of GDP.¹ For Colombia: López (2006) refers to the calculation by Carasquilla *et al.* (1994) that a rise in inflation from 5% to 20% would cost 7% of GDP; Posada (1995) and Riascos (1999) found, respectively, that inflation at 20% would cause a GDP fall of 3.9% and 1.5%; and López (2001) estimated that the output cost of inflation rising from zero to 5% would be 0.7%.

Yet, it is also reasonable on various grounds to believe that zero or negative inflation is not desirable either: the presence of rigidities in nominal wages and in prices would be an obstacle to adjusting them in the face of, respectively, labor-market shocks or supply or demand shocks;² the zero limit on the nominal interest rate would prevent its downward adjustment in times of recession; and the existence of a bias in measuring the CPI would overestimate inflation.³ On these grounds it is felt that the inflation target should be low but not zero.

* The authors are, respectively, a staff member and a former assistant in the Programming and Inflation Department. The views expressed are those of the authors and should not be attributed to the Banco de la República or its Board of Directors.

1 For other countries, based on the study by Feldstein (1996), Bakshi *et al.* estimated that a 1% rise in inflation could reduce Germany's GDP by 0.7%; Tödter and Ziebarth (1997) indicated that a 1% rise caused a 0.1% drop in England's GDP; and Bonato (1998) concluded that a 2% fall in inflation would raise New Zealand's GDP by 0.7%.

2 In this connection see the studies by Akerlof (2000) and Wyplosz (2001), among others.

3 For Colombia, the CPI measurement bias has been estimated by two studies: Caicedo (2000) gives a 0.7% substitution bias for

Then, how close to zero should the target be set? A number of empirical studies show that the relationship between the level of inflation and its repercussions on output may be nonlinear (Ghosh and Phillips, 1998; Khan and Senhadji, 2000; Brook *et al.* 2002, among others). This means that there may not be a negative relationship between inflation and output at a sufficiently low level of inflation, and that, on the contrary, very low inflation rates may stimulate output growth to some extent. For example, the study by Gosh and Phillips (1998), based on forty years of data on 140 countries, estimated that in countries with over-3% inflation the relationship between inflation and output growth was negative, but where inflation was below 2% the relationship could be the reverse.

The Balassa-Samuelson effect should also be taken into account, for as commented by Rezessy (2006) countries growing faster than their trading partners should have a slightly higher inflation target than their partners' long-term level. In effect, a country with a faster growing tradable-sector productivity than its trading partners' will see a higher relative inflation in its nontradable sector, and if the inflation target is very low the tradable sector may have to cut production. In this scenario it is preferable for developing countries to have higher inflation targets than those prevailing in developed economies.

Hence the consensus that the optimal inflation should be positive but small. Bernanke *et al.* (1999) confirm that, in practice, the inflation targets most used internationally have been in the range of 1% to 3%. However, the optimal inflation rate for any country will depend on the elements discussed above: the weight given to inflation costs, the characteristics of existing nominal price and wage rigidities, the types of shock (nominal or real, soft or hard, temporary or lasting) occurring in the market, the size of the CPI measurement bias, and, lastly, the importance of the Balassa-Samuelson effect in the economy.

3. How long in advance should the target be set?

Central banks applying inflation targeting usually set their targets before the start of the target's validity period. An essential element of this decision is each country's monetary-policy operational lag. Mishkin (2000) states that setting the target at a length of time in advance shorter than this lag gives rise to three major problems. First, difficulties in controlling inflation: frequent failures to meet the target, even by applying an optimal monetary policy. Second, instability in policy instruments, resulting from frequent attempts to meet the target. Lastly, the short length of time in advance that the decision is made means that output changes are of little importance in the central bank's loss function. Mishkin concludes therefore that the solution to these problems is to adopt inflation targets two years in advance. This signals that the central bank will

take shocks to the economy into account with foresight and will show that it is aware of the effect of monetary policy on future output.

4. What should the target horizon be?

A central bank must further decide what period the target is to cover, this decision having different implications in terms of flexibility and transparency. For Bernanke *et al.* (1999) a target of less than a year lacks validity, because inflation is not controllable by monetary policy in such short a time. But according to them neither should the horizon be longer than four years, for uncertainty would then be too great for the target to be credible. Deciding on a horizon thus involves a dilemma between transparency (short horizon) and flexibility (long horizon).

Rezessy (2006) goes further, pointing out that in practice horizons may be set to be variable or continuous, each type having costs and benefits. Variable targets⁴ provide the benefit of greater flexibility in coping with any major inflation shock, allowing the bank to decide how fast to stabilize the shock by setting targets for the following years. But the cost of this benefit is greater uncertainty about future inflation, making it difficult to form inflation expectations and ultimately affecting the consolidation of monetary policy and price stability. In contrast, continuous targets increase the predictive capacity and, hence, transparency of monetary policy, stabilizing inflation expectations and thus enhancing the central bank's credibility. They are, moreover, better able to combat the danger of deflation and a credit trap and generally tend to be best practice. However, demand shocks may make it much more costly to maintain a continuous target in the short and medium term. Rezessy therefore concludes that best practice would be to set a variable target with a long horizon (five to eight quarters); this would enable the central bank to deal effectively with a transitory shock, without jeopardizing meeting the target.

5. Should the target be a point or a range?

Another question is whether the inflation target should be a point or a range. International experience shows that if a point target is chosen, a tolerance band should be defined for it: usually one percentage point above and one below the target. Note however that a point target with a tolerance band is not the same as a target range, for they provide different information to the market. According to Bernanke *et al.* (1999), a target range communicates to the market "useful information about the central bank's assessment of the uncertainty surrounding the effects of its policies." It also declares the bank to be indifferent to inflation movements within the range, whereas

1987-1998, while Caicedo and Langebaek (2007) estimate that the total bias for 1984-1994 ranged between 1.63% and 1.69%.

4 Variable targets are revised or set after short periods of time, for example a year.

a point target may be more transparent and is likely to guide expectations more effectively. Note, however, that the choice between a point target and a target range also involves the dilemma between transparency and flexibility. For although a point target may be more transparent, meeting a target range is more feasible—but missing it will be more harmful to central-bank credibility.

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III. MACROECONOMIC OUTLOOK

The risk of a US recession has increased and with it the likelihood that Colombia's economy will be affected. Added to this are the trade restrictions imposed by Venezuela.

However, a soft US recession should not necessarily reduce Colombia's terms of trade or FDI and should therefore have a limited effect on the country's economic performance.

In 2008, monetary policy will continue to moderate growth, toward a sustainable long-term rate.

In this context, excess demand will continue to abate and should disappear sometime between late 2008 and 2009, helping to reduce inflation in the long run.

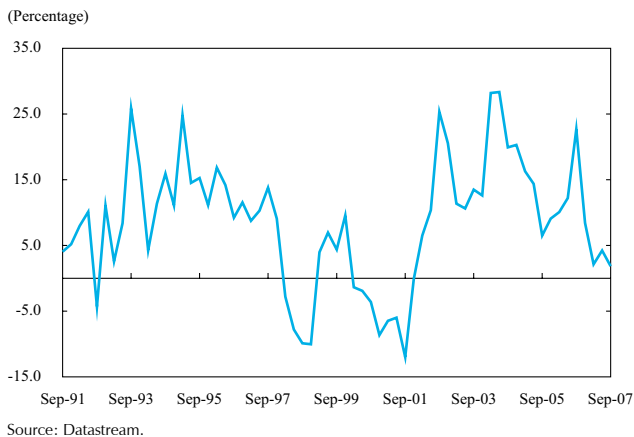
In 2008, food and fuel prices will continue to generate pressures, driven mainly by external factors. To this should be added risks from high inflation expectations.

A. INTERNATIONAL CONTEXT

The risk of a possible recession in the United States has intensified sharply in recent months, and the contractionary phase of the country's economic cycle is, moreover, likely to last longer than in 2001. The world economy grew at a healthy pace in 2007, but the recent financial crisis, which originated in the US, may be affecting the economic stability not only of the US but of the other developed economies. In this new state of affairs, uncertainty has grown about emerging economies' degree of vulnerability.

Available indicators show that the US economy weakened notably in the fourth quarter, by more than forecast in previous *Inflation Reports*.⁷ The US housing market showed no sign of recovery at the end of 2007: credit constraints facing home buyers had increased, while sales, building permits and housing starts continued to deteriorate. As a results, housing inventories rose, foreshadowing further price falls.

Graph 36
Corporate Profits
(Annual Change)



Other indicators also pointed to a marked weakening in the US economy. The unemployment rate was up by 30 bp in December, from 4.7% to 5%, while job creation slowed considerably, a development not seen since the recession of 2001. To this was added the fall in industrial-production expectations in December 2007. Household consumption, highly buoyant until not long before, was affected, to judge from lower retail sales in December (relative to November) and the behavior of consumer expectations. Lastly, deterioration in the different real-sector and housing-market indicators, coupled with high prices for raw materials and greater credit constraints seemed to be reflected in the corporate sector, where profits are already low and close to levels seen in previous periods of economic downturn (Graph 36).

Fourth-quarter developments, together with rising financial constraints—no longer concentrated only in mortgage credit—, have led to downward revision of the September *Report's* US growth forecast of 2% for 2008. Greater uncertainty prevailing currently makes it advisable to consider today a range of 0.8% - 1.5%.

At the top of that range, US economic output would slowdown in the first half of the year but without going into recession. At the bottom of the range, there would be a mild recession, like the one in 2001. Judging by the high volatility of world markets in early 2008, the risks are tipped toward the low point of the range (Table 7). However, the fiscal aid announced by the United States government, action by the Fed and the improvement in net exports could moderate the fall.

In the above scenario, the pace of growth for the other developed economies would be slower than expected three months ago. Although the eurozone economies and Japan were growing healthily to the third quarter of 2007, more recent indicators may be pointing to a loss of momentum. In effect, the business confidence index and consumer expectations have deteriorated substantially in both the eurozone and Japan. Other indicators, such as retail sales, continued to weaken in the eurozone, so did industrial production in Japanese.

⁷ As this *Report* was being prepared, the preliminary figure for fourth-quarter growth was reported to be 0.6% (annualized quarterly rate), which was less than expected.

Table 7
Main Trading Partners' Growth Forecasts
(Percentage)

	Actual growth 2006	Pronósticos para			
		Forecasts for 2007, at:		Forecasts for 2008, at:	
		Oct-07	Jan-08	Oct-07	Jan-08
Main partners					
United States (Consensus)	3.3	2.0	2.2	2.4	2.1
United States (bop)	3.3	1.9	1.9	2.0	1.6
US central scenario	3.3	n.d	2.2	n.d	0.8-1.5
Eurozone	2.7	2.6	2.6	2.2	1.9
Ecuador	4.5	2.4	1.9	2.4	2.2
Venezuela	9.8	8.2	8.4	4.5	6.0
Venezuela (bop)	9.8	8.0	8.2	6.0	6.5
Other partners					
Japan	2.4	2.3	1.8	2.1	1.5
China	10.5	11.3	11.4	10.6	10.5
Peru	7.2	7.5	8.1	6.4	6.8
Mexico	4.7	2.9	3.1	3.4	3.2
Chile	4.3	5.9	5.3	5.2	4.9
Argentina	8.4	7.6	8.3	5.4	6.2
Brazil	2.8	4.8	5.2	4.5	4.7
Bolivia	4.1	4.3	4.0	4.3	4.5
Developed countries	3.1	2.2	2.3	2.2	2.0
Developing countries	7.0	5.9	6.1	4.6	5.0
Total trading partners	4.6	3.6	3.7	3.2	2.6-3.0

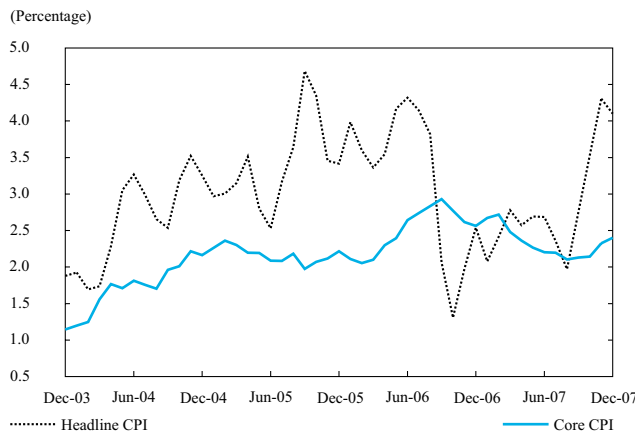
N.a.: Not available.
Source: Datastream-Consensus.

Nevertheless, this *Report* considers that the US economy's downturn will not imply recession in other developed economies. Thus, in a central scenario the expected pace of growth for 2008 in the eurozone and Japan would still be positive (1.9% and 1.5%, respectively), albeit lower than expected three months ago (Table 7). As in the case of the United States, the risks to growth in these economies have increased since the previous *Report*.

In the above context, interest rates, especially in the US economy are expected to continue falling. Depending on the size of the slowdown, the Fed's interest rates could be between 2.75% and 2.25% by the end of 2008. Eurozone and Japanese interest rates are expected to remain essentially unchanged, edging down by year's end.

One factor that will determine the size of US rate cuts will be inflation behavior. US consumer and producer inflation rates (core and headline) have risen in recent months, driven by high energy, food and some service prices (Graph 37). This situation, if

Graph 37
US Annual Consumer Inflation



Source: Datastream.

it persists, will complicate the US Federal Reserve's monetary-policy decision-making.

It is not clear what impact a possible US recession may have on emerging countries. Numerous channels connect the United States to these countries, and its interrelationship with them is highly complex. Economic literature and recent history, however, point to just four major channels through which an impact may occur:

1. The first would be a deceleration or reduction of export demand. Evidence in this respect is provided by the 2.9% contraction in Colombia's industrial exports (in dollars) to the US during the 2001 recession.
2. A second channel is the terms of trade, of particular importance to commodity-exporting countries such as Colombia. Given that China and India have accounted for a large share of demand in commodity markets for a number of years, the price impact will depend on how hard the Chinese and Indian economies are hit by a US recession.
3. The third channel is capital flows, both portfolio and foreign direct investment (FDI). The direction of flow will partly depend on yield differential: a strong fall in external rates, not attended by a higher perception of risk, could increase capital inflows. In commodity-exporting countries such as Colombia, FDI and even short-term flows may be tied to price behavior: in 2007 some 52% of FDI went to mining projects, including oil exploration. Moreover, a greater credit crunch in the US may in some way affect bank liquidity in Colombia. And countries with a less sound fiscal and external position may be more vulnerable to changes in risk perception.
4. Lastly, Colombia and many other emerging countries cannot disregard the effect that a slowdown in the US and other developed economies may have on remittances or the impact that these in turn may have on domestic demand and the exchange rate. There is already evidence from countries such as Mexico that remittances have stopped growing as a result of the US economy's sluggishness.

There is great uncertainty therefore about emerging-economy growth, greater than foreseen in the previous *Report*. But there are reasons to believe that this time a moderate US recession would have a smaller effect than before on emerging economies, including Colombia. Structural changes observed over the past ten years in emerging countries support this conclusion. Such changes are particularly evident in China, where exports may have been a strong driver of growth in this decade but stronger still may have been domestic demand, especially investment

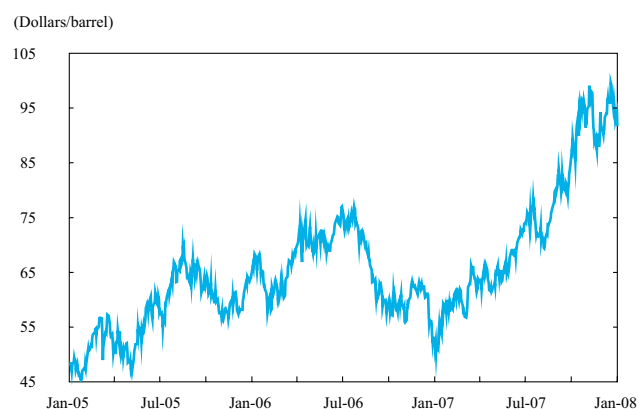
Fed rates may be in the range of 2.25% and 2.75% by the end of 2008.

No steep falls are expected in commodity prices.

(in infrastructure) not directly tied to the export sector (*The Economist*, December 2007). Many other countries have also introduced institutional changes leading to sounder monetary and fiscal policies, allowing them to substantially improve their position as net debtors and reduce their vulnerability to external shocks.

Accordingly, in a central scenario we expect emerging economies to continue showing strong growth this year, albeit at a somewhat slower pace than last year. China's economy, in particular, is expected to grow by 10.5% this year, decelerating from 11.4% in 2007, as a likely result of moderation in exports, coupled with the restrictive policies the monetary authority has been pursuing to control inflation.

Graph 38
WTI Oil Price, New York Stock Exchange

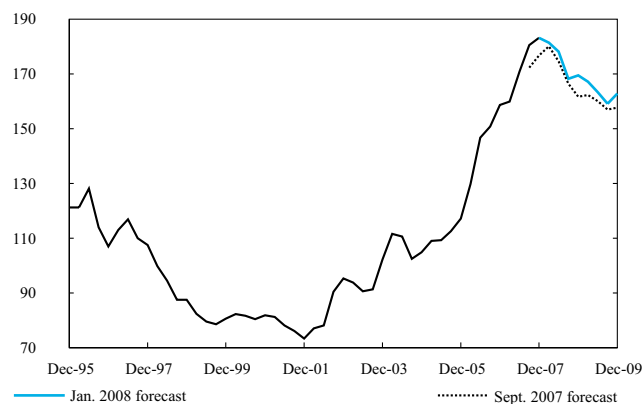


Source: Bloomberg.

Latin American economies, too, are expected to expand more slowly than in 2007, but still at a healthy rate. This *Report's* projections, therefore, are not much different from the previous one's. Regarding our major trading partners, Venezuela is projected to grow by 6.5% and Ecuador by 2.2%, lower percentages than in 2007.

In this external context, only a moderate deceleration is expected in global demand, making it unlikely there will be any sharp corrections in commodity prices. In the particular case of oil, the price rise at the end of 2007, resulting from higher demand in winter and geopolitical problems, may be transitory (Graph 38). Moderate falls are expected to bring the average price of oil in 2008 down to \$73.5 - \$87 a barrel, depending on US performance, but the level will in any case be higher than in 2007.

Graph 39
WCF Overall Commodity Price Index, Excluding Oil



Source: Economist Intelligence Unit.

Other commodity prices are expected to remain high, relative to last year. According to the Economist Intelligence Unit, commodity prices excluding energy may increase by 0.4%, much the same rate as was forecast three months ago. This increase, however, involves behavior changes among groups: metal prices are expected to fall by more than projected three months ago, because of an expected slowdown in global demand, but this fall should be offset by higher food prices, which will not be corrected any time soon (Graph 39).

The current-account deficit in 2007 may have been 3.8% of GDP or even less.

Accordingly, prices for Colombia's main exports should remain relatively high in 2008, though somewhat lower than at the end of 2007, especially oil prices. Gold would be an exception, showing a steep price rise. Hence, in a context of moderate US recession and some global deceleration, Colombia's terms of trade should not be much different from the average in 2007, with some prices even coming in above average (Table 8).

Table 8
World Prices

	2005	2006	2007	Projection for 2008	
				Current ^{a/}	Previous ^{b/}
Coffee (<i>ex dock</i>) (dollars/pound)	1.2	1.2	1.2	1.2	1.0
Oil (dollars/barrel)	49.8	58.3	61.3	67.1-80.8	68.3
Coal (dollars/tonne)	47.8	48.0	50.1	55.7	50.5
Nickel (dollars/pound)	2.4	3.6	5.5	3.8	4.3
Gold (dollars/troy ounce)	445.0	604.6	675.3	865.4	685.3

a/ Balance of payments estimated in January 2008.
b/ Balance of payments estimated in September 2007.
Source: Banco de la República.

B. BALANCE OF PAYMENTS IN 2007 AND OUTLOOK FOR 2008

The global economy's good performance in 2007, added to high world prices for Colombia's main exports and robust sales to Venezuela, allowed Colombia's total exports in dollars to grow faster than in 2006 (by an estimated annual rate of some 17%, and nontraditionals by 21%). Imports surged by about 26% in 2007, driven by the economy's buoyant growth. As estimated by the Banco de la República, the current-account deficit may thus have been 3.8% of GDP, or even less, depending on the strength of exports in December. This deficit was amply covered by capital inflows of foreign direct investment, possibly amounting to 5.% of GDP according to estimations.

It is important to point out that the widening of the current-account deficit in 2007, relative to previous years, resulted from the economy's high rate of investment. Investment has been rising by over 20% of GDP since 2005 but has required external funding, which has come into the country mostly in the form of foreign direct investment. Note that, although the domestic saving rate has not been sufficient to finance agents' investment decisions, it has risen over this decade, reaching some 20% of GDP in the past three years (Table 9).

Table 9
Macroeconomic Balance
(Percentage Of GDP)

	2001	2002	2003	2004	2005	2006	2007 (proj.)
Saving - investment = Current-account balance	(1.3)	(1.7)	(1.2)	(0.9)	(1.5)	(2.2)	(3.8)
Total saving	12.9	13.6	16.0	18.3	19.3	21.2	18.4
Total investment	14.3	15.3	17.2	19.2	20.8	23.5	22.2

(proj.): Projected
Source: Banco de la República, Ministry of Finance and Public Credit and National Planning Department.

As stated in the previous section, the basic assumptions for the Banco de la República's central-scenario forecasts for 2008 envisage slower global growth,

relative to what was assumed in the *Inflation Report* of three months ago, and also better world prices, which could make up for at least part of the fall in foreign demand for our export products. Imports are projected to grow strongly, on the back of both investment projects (partly initiated last year) and purchases of arms and military equipment amounting to 0.8% of GDP. On the basis of the above and the uncertainty about the size of the US slowdown and its potential impact on global growth and world prices, the current-account deficit for 2008 is projected to be wider than the estimate for 2007.

Already announced foreign direct investment projects should not be affected by greater uncertainty in the US.

Regarding capital flows and the exchange rate, the Bank's central scenario assumes that the cut in Fed rates will offset the rise in the country's risk premium, thereby neutralizing its effect on portfolio capital flows. Investors' decisions about already announced projects of foreign direct investment are not expected to be affected by uncertainty over a US recession. Lastly, the public sector is expected to increase its external borrowing in 2008. In all, therefore, the exchange-rate average for full-year 2008 might remain relatively stable.

C. GDP FORECASTS FOR 2008

Colombia's growth will continue to moderate in 2008...

Growth is expected to continue to moderate in 2008, partly in response to monetary-policy adjustments undertaken since mid-2006, but also as a result of factors arising in 2008, mainly in the external context:

- A slowdown in the US and the rest of the world, relative to previous years, would affect the performance of our exports, the terms of trade, remittances from abroad and capital flows.
- Trade with Venezuela has been highly dynamic in recent years, accelerating growth in Colombia's industrial and farming sectors. This effect, in itself, is expected to moderate in 2008, to which would be added the trade restrictions announced by the Venezuelan government.
- A third factor is the possible loss of household purchasing power, as a result of higher food and fuel prices. This may have further repercussions on private consumption.

...but it is surrounded by great uncertainty.

Broad volatility in the external context results in higher uncertainty on the domestic front. Based on various exercises, it is estimated that the response of Colombian GDP growth to a one percentage-point fall in US economic expansion will be between 0.8% and 1.2%. This effect takes into account the different channels, described in the previous section, through which a US slowdown would be transmitted. Note that, though the response range is small, uncertainty about the size of the shock is important. Bear in mind also that the relationship between

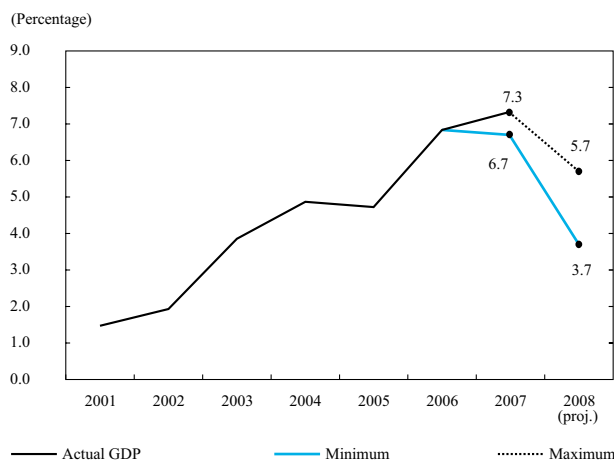
the economic cycles of Colombia and the US has been low for the past decade and a half.

For this *Report* various growth forecasts were made for Colombia, using different methodologies that took into account uncertainty over the external context and recent domestic trends. In all cases a higher current-account deficit was envisaged for 2008 than the deficit expected in 2007, partly on account of higher imports of military machinery and equipment. It was further assumed that recent years' buoyancy in foreign direct investment would continue in 2008, with implementation of several infrastructure projects already announced for 2008, such as expansion of the Cartagena refinery and civil-engineering works connected with the national highway development plan.

Forecasting also envisaged higher national income, as a result of increased oil production and relatively favorable terms of trade. But in a scenario of marked US recession, lower terms of trade would be expected, with negative effects on income. In the case of public spending, consumption is assumed to grow by 4%-6% and investment by 10%-15%.

Projections of exports to Venezuela for 2008 took into account a 50% fall in the 2007 value of automotive sales to that country. Last year, vehicle exports accounted for 19% of total exports to Venezuela and 7.6% of industrial exports to all destinations. The GDP impact of the Venezuelan trade restriction is estimated at 0.2 pp, assuming that sales to other destinations and within Colombia will offset declines in the Venezuelan market.

Graph 40
Real Annual GDP Growth



(proj.): projected.
Source: DANE; calculations by Banco de la República.

GDP growth in 2008 is, accordingly, estimated to range between 3.7% and 5.7% (Graph 40), down from the September *Report's* projected range of 4.5% - 6.5%. The bottom of the range corresponds to a marked recession in the US, which would have a stronger impact on the terms of trade, trading partners' growth and sales to Venezuela.

The forecasts show the different types of spending extending in 2008 the trends displayed in the previous two quarters. Household consumption, in particular, would continue to decelerate at a moderate pace, in response to higher interest rates and slower credit expansion. The behavior of exports and investment would be strongly associated with the external scenario envisaged and would not therefore be substantially affected by a not very deep downturn in the US.

In view of the above and current foreign and domestic developments, GDP growth is most likely to come in at the top of the projected range. The new projections are slightly lower than analysts' 5.3% average for 2008, which they have held unchanged.

The major risks to the most likely forecast are downward, because of the difficult external situation and the problems currently faced by exports to Venezuela. Upside risks would arise from higher public spending (consumption and investment), and from greater capital inflows in a favorable external scenario in which risk perception does not rise substantially and yield differentials are in Colombia's favor.

D. INFLATION FORECASTS

1. Forecasts

Several of the risks predicted for 2008 in previous *Reports* have materialized, lifting inflation forecasts. Increases occurred mainly in food inflation and to a lesser extent in nonfood inflation. Consequently, the headline consumer inflation forecast for full-year 2008 and early 2009 is now higher than predicted in the September *Inflation Report*.

The central forecast indicates that consumer inflation could end 2008 at 4.7%, above the monetary authority's target range of 3.5% - 4.5%. Inflation will fall, particularly in the first half of the year (Table 10). The September *Report's* year-end forecast for 2008 was 4.3%.

Table 10
Transmission Mechanism Model Central Forecasts ^{a/}

	Headline inflation	Food inflation	Total	Nonfood inflation:			Output gap
				Nontradable	Tradable	Regulated	
Sep-07	5.0	7.0	4.1	5.6	1.2	5.9	2.8
Dec-07	5.7	8.5	4.4	5.2	2.3	6.4	2.6
Mar-08	5.1	6.7	6.7	5.1	2.0	7.1	2.2
Jun-08	5.0	6.4	6.4	5.0	2.2	7.2	1.8
Sep-08	5.1	6.8	6.8	5.0	2.4	6.2	1.3
Dec-08	4.7	5.9	5.9	5.0	2.2	5.8	0.6
Mar-09	4.4	4.9	4.9	5.1	2.6	4.6	0.2
Jun-09	4.2	4.2	4.2	5.1	2.7	4.2	(0.1)
Sep-09	4.1	4.1	4.1	4.8	2.8	4.4	(0.4)
Dec-09	3.9	3.9	3.9	4.5	2.9	4.0	(0.7)

a/ These forecasts are built on a monetary policy that seeks to ensure achievement of long-term inflation targets.
Source: Banco de la República.

Inflation forecasts have risen, ...

...in part because of expected movements in food prices.

Several factors are accountable for upward revision of forecasts, notably: stronger pressure from fuel and food prices; the bigger role of inflation expectations and inflationary inertia, given the rise in the CPI in the fourth quarter of 2007 and the failure to meet the target. The forecasts also show that pressure from excess demand may persist over much of 2008 and begin to abate by 2009.

By basket group, the main change would occur in food inflation (Table 10). For the fourth quarter of 2008, food inflation is expected to run at 5.9%, lower than a year earlier but still above the headline target's ceiling, thereby extending the rising trend observed since 2001 in the relative price of food. The chief reasons for the higher projection are:

1. World food prices went up at the end of the year by more than expected and will thus be putting pressure on domestic prices during part of 2008, especially for directly imported products such as cereals and oils but also for meat and dairy produce through higher production costs or trade deviation, among other things. This *Report*' central path assumes that during 2008 and 2009 world food prices will remain as high as at the end of 2007 but go no higher.
2. The recent months' rise in fuel prices beyond the previous *Reports*' predictions and its effect on farm inputs and transport costs may put greater pressure on food in 2008 than envisaged in previous projections.
3. Information from the ranching sector, coupled with a fourth-quarter decrease in cattle slaughter, suggests that Colombian ranching may be going into a retention phase, after an unusually long liquidation phase. If so, growth in the supply of beef will be limited in 2008 and even in 2009, pushing prices up. This situation was not fully envisaged in the September *Report* but has been taken into account in the central path of the present *Report*.
4. Weather conditions in the first half of 2008, resulting from an already announced episode of La Niña, may cause temporary interruptions in the supply of some produce, with the consequent rise in their prices.
5. In 2007, food inflation was also affected by strong foreign and domestic demand. The growth and gap forecasts presented in earlier sections suggest that such pressures may persist over part of 2008, albeit weaker. Processed and semi-processed foods and restaurant meals would be the most affected.

The Bank's most probable forecast for nonfood inflation by the end of 2008 is 4.3% (Table 10), 30 bp higher than predicted in the September *Report* but slightly lower than observed in December 2007 and, moreover, running within the Board's target range. According to the Bank's models, nonfood inflation may remain unchanged in the first half of 2008 and slowly fall during the second half and in 2009.

In 2008, regulated prices will remain subject to pressure from high oil prices.

Within nonfood CPI, inflation forecasts for the regulated group and the nonregulated tradable group have been revised up. In the case of the regulated group, because of the recent world oil price surge and its possible impact on domestic fuel and transport prices, though the final results will depend on

Nontradable inflation will remain above target in 2008.

government action about the dismantling of subsidies. Regulated public services may overshoot the inflation target.

Higher nonfood nonregulated tradable inflation than contemplated in the September *Report* is attributable to the pick-up observed at the end of the year and the bigger inertial component it signifies for 2008. Although it is not clear what the origin of this fourth-quarter pick-up was, some signs point to greater pressure from world fuel prices and their impact on petrochemicals: by item, the largest increases were reported in detergents, soaps, waxes and batteries. The presence of demand pressure cannot be ruled out either, especially since the markets in these goods and medicines tend to be more concentrated and with greater pricing power. What can be ruled out is the existence of exchange-rate pressure, given the peso's appreciation in 2007. No great pressure is expected from this front in 2008 either, given the balance-of-payment forecasts reviewed earlier.

Lastly, the projection for nonfood nonregulated nontradable inflation has been revised down because of the fall observed at the end of 2007, which was not anticipated by the Bank's models. Inflation in this group has a large autoregressive component according to the Bank's modeling.

The Bank's interest-rate increases should provide some relief in nontradables from the second half on. But the path may remain above the target range in 2008 and 2009, owing to the presence of excessive demand and relatively high inflation expectations, added to a considerable inertia element.

To sum up, the latest projections suggest that inflation will remain high relative to targets for longer than was predicted in previous *Reports*. Pressure from demand and expectations will persist in 2008 but is expected to abate gradually as a result of monetary-policy measures. In this context, the trend toward growth moderation witnessed in the second half of 2007 should be strengthened in 2008 to allow excess demand to decline.

Food and fuel will continue to be a major source of inflationary pressure, owing in part to external developments. No inflationary pressure is expected from the exchange rate in 2008. The projections discussed above have, as usual, been obtained on the assumption of an active monetary policy adjusted to ensure that the long-term target range (2% - 4%) would be met.

2. Risks

Pressure from demand will persist in 2008 but will then abate as a result of monetary-policy measures.

Risk assessment has become more complicated than usual this time, given the high degree of uncertainty prevailing in the external context. As a result, the fan Graph, or balance of risks, is wider than in previous *Reports*. The risk balance in the present *Report* has a small downward bias relative to a central forecast that is high compared with the Board's targets. That is because the external context

The uncertainty surrounding inflation forecasts has widened considerably.

has a considerable bearing on inflation forecasts, given the multiple channels through which it operates. Nevertheless, the upside risks are not negligible.

Downside risks:

- External risks currently point to slower growth in the US and other developed economies than is envisaged in the central scenario. Moreover, this risk has been mounting according to the latest information, which points to a strong downturn in US economic activity and further suggests that the deceleration could be more protracted than expected and could have a considerable impact on global financial markets. Should these fears materialize, Colombia's chances of economic growth would tend to be slimmer than envisaged in the central forecast, potentially easing excess demand in part and reducing price pressures.
- The existence of a narrower output gap than predicted in the previous *Report* (resulting, for example, from recent years' strong investment) is no longer wholly ruled out. In this event, inflation in some baskets, particularly nonfood nonregulated nontradables, could be lower in 2008 than is predicted by the central path.

Upside risks

- The central forecast assumes that monetary-policy credibility will remain high and that inflation expectations will not be off-target in the medium and long term. Recently, however, inflation expectations have risen sharply, in a context in which inflation has come in above target and, for the first time since 1997, above the previous year's level. There is a very serious risk therefore of expectations remaining high for a long time and ultimately being incorporated in wage and price agreements. Transitory price shocks could thus affect inflation for longer. The traditionally high inertia of Colombian inflation and the indexing mechanisms still in operation may further increase this risk.
- The recent behavior of the employment rate points to a robust labor market that may be tightening, in which case wage pressures will be higher than predicted in the central forecast, pushing inflation up.
- Despite the risks of a global economic slowdown, in recent months and the first weeks of January oil prices have run very high, overshooting this *Report's* 2008 forecast. If they continue to do so, their impact on domestic fuel prices, public transport and, in general, on production costs could exceed what is envisaged in the central inflation forecast.
- The central scenario does not contemplate any increases in external food prices beyond the levels observed at the end of 2007. But these prices were still rising in early January, despite the greater likelihood of a US recession.

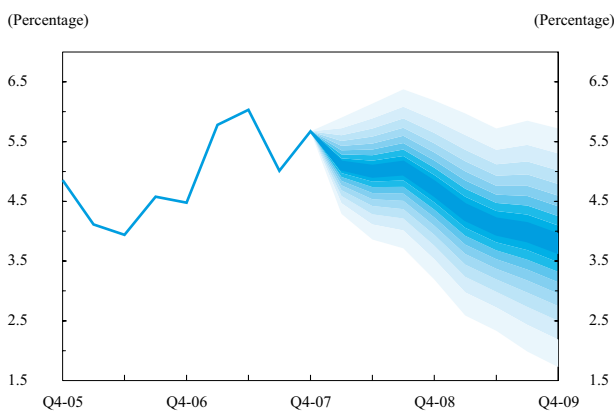
High inflation expectations pose a serious risk to meeting targets

Consequently, the emergence in 2008 of further shocks to imported food inflation in Colombia is not ruled out.

Downward biases in the external context notwithstanding, note that in the past the economic cycles of Colombia and the larger economies have not always been synchronized. Moreover, existing factors such as high terms of trade make such a disconnect more likely. Furthermore, the external risk produces a downward bias on inflation, provided it does not put pressure on the exchange rate to depreciate, as is assumed in this *Report*. However, uncertainty on the exchange front is more pronounced today than in the preceding quarters.

Graph 41 presents the balance of risks condensed in a fan Graph, and the corresponding table of probabilities. Implicit in the results is an active monetary policy that is adjusted to ensure meeting long-term inflations targets and stabilizing output.

Graph 41
Inflation Forecast's Probability Distribution (Fan Graph) ^{a/}



Acumulative Probability Of Consumer Inflation Falling In The Range Indicated

Inflation range (%)	Probability (%)	
	December 2008	December 2009
Above 5.5	19.1	7.3
Below 5.5	80.9	92.7
Below 5.0	62.4	84.7
Below 4.5	40.8	72.4
Below 4.0	21.9	56.8
Below 3.5	9.4	40.6
Below 3.0	3.2	26.1

a/ These forecasts are built on a monetary policy that seeks to ensure achievement of long-term inflation targets.
Source: Banco de la República.

ATTACHMENT

LOCAL AND EXTERNAL ANALYSTS' MACROECONOMIC FORECASTS

This Attachment reviews local and external analysts' latest projections of Colombia's main macroeconomic variables for 2008 and 2009. At the time of the poll, agents possessed information to December 2007.

I. PROJECTIONS FOR 2008

Table A1 shows forecasts for 2008. On average, both local and external analysts expect economic growth of 5.3%, 7bp up from their published forecasts of the previous quarter. These upward revisions are attributable in part to the country's favorable economic situation as shown by supply and demand indicators, strong credit growth and historically high levels of the (Fedesarrollo) consumer confidence index.

Although expected growth of 5.3% for 2008 implies a slowdown from actual growth in 2007 and 2006, it would, if it were met, mark five years of growth close to or above 5%. The economic-growth projection for this year is reckoned to be more sustainable and not to involve any macroeconomic imbalances in the medium term.

Local analysts raised their inflation forecast by 20 bp, to 4.3%, while external analysts revised theirs up by 50 bp, to 5%. Inflation expectations remained above the 2008 target range (3.5%-4.5%), as they had three months ago. This result was consistent with the Banco de la República's quarterly expectations survey, conducted in December, which revealed that only 17% of respondents believed the 2008 inflation target would be met.

Exchange-rate forecasts were lowered: on average, analysts expect the market rate (TRM) to stand at 2.108 pesos at year's end; that is a 4.2% depreciation from the level at year-end 2007. The highest expected depreciation is 10.5% (2,250 pesos to the dollar) and the lowest -2.3% (1,969 pesos), reflecting the high degree of market uncertainty about future exchange-rate movements. The possibility of the United States going into recession, and the effect that may have on our

Table A1
Projections for 2008

	Real GDP growth (%)	CPI inflation (%)	Year-end nominal exchange rate	Nominal DTF deposit rate (%)	Fiscal deficit (% of GDP)	Unemployment rate, 13 cities (%)
Local analysts						
Alianza Valores	4.8	4.6	1,969	8.9	1.5	13.5
Anif	5.5	4.4	n.a.	n.a.	1.4	n.a.
Banco de Bogotá	5.5	5.0	2,100	8.8	0.5	10.0
Banco Santander	5.3	4.6	2,115	8.0	1.4	10.1
Bancolombia-Suvalor	5.6	4.4	2,078	8.8	1.4	n.a.
BBVA Colombia	5.4	4.5	2,215	9.5	1.4	n.a.
Corficolombiana-Corfivalle	5.6	4.4	2,078	8.8	1.4	n.a.
Corredores Asociados	5.0	4.2	2,150	8.4	1.5	10.5
Correval	5.0	4.6	2,055	8.8	1.4	n.a.
Fedesarrollo	5.7	4.2	2,115	n.a.	1.4	n.a.
Average	5.3	4.5	2,097	8.7	1.3	11.0
External analysts						
Bear Stearns	5.7	4.3	2,000	9.1	1.0	9.0
Citi Bank	5.3	4.8	2,000	9.5	3.5	11.0
CS First Boston	5.0	4.5	2,250	n.a.	1.6	n.a.
Deutsche Bank	5.5	4.2	2,231	n.a.	0.8	n.a.
Goldman Sachs	4.9	4.4	2,120	n.a.	1.4	n.a.
Average	5.3	4.4	2,120	9.3	1.7	10.0

n.a. Not available

Source: Banco de la República, based on electronically provided information.

economy's current account (exports, remittances etc.) and capital flows may be the cause of such volatility.

The DTF rate is expected by analysts to end the year at 8.9%, which implies relative stability in deposit rates. The analysts' average forecast for the consolidated fiscal deficit is around 1.4% of GDP, in accordance with the latest projection of the Fiscal Policy Council (Confis) for the consolidated public sector. Lastly, the thirteen cities' unemployment rate is forecast to remain at 10.7%.

2. PROJECTIONS FOR 2009

For 2009, projections averaged 4.9% for growth, and 3.9% for inflation—close to the ceiling of the long-term target range (2% - 4%). The exchange rate is expected on average to undergo a 2.7% annual devaluation, with local analysts forecasting a market rate of around 2,180 pesos at the end of 2009 and foreign analysts a rate of 2,220 pesos, which implies that, on average, there will be a cumulative depreciation of 8% between 2008 and 2009, relative to the level reported at December 2007.

Table A2
Projections for 2009

	Real GDP growth (%)	CPI inflation (%)	Year-end nominal exchange rate
Local analysts			
Alianza Valores	n.a.	n.a.	n.a.
Anif	n.a.	n.a.	n.a.
Banco de Bogotá	4.5	4.5	2,200
Banco Santander	5.0	4.2	2,200
Bancolombia-Suvalor	5.0	3.5	2,036
BBVA Colombia	4.5	4.1	2,289
Corficolombiana-Corfivalle	5.0	3.5	2,036
Corredores Asociados	5.5	4.0	2,300
Correval	5.0	4.0	n.a.
Fedesarrollo	5.1	3.7	2,194
Average	5.0	3.9	2,179
External analysts			
Bear Stearns	5.0	4.0	2,050
Citi Bank	n.a.	n.a.	n.a.
CS First Boston	4.5	4.0	2,320
Deutsche Bank	5.3	3.7	2,303
Goldman Sachs	4.6	4.0	2,200
Average	4.9	3.9	2,218

n.a. Not available

Source: Banco de la República, based on electronically provided information.

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