# Informe sobre Inflación

Septiembre de 2008

# INFLATION REPORT

September 2008*

* Submitted by the technical team to the Board of Directors for their meeting on 24 October 2008.

Banco de la República
CENTRAL BANK OF COLOMBIA
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# The Inflation Targeting Strategy in Colombia

## OBJECTIVES

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

## HORIZON AND IMPLEMENTATION

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

## THE DECISION-MAKING PROCESS

Monetary-policy decisions are based on an analysis of the current state of the economy and its prospects for the future, and on an assessment of the forecast for inflation in light of the targets. If the assessment suggests, with enough certainty, that inflation will deviate from its target under current monetary-policy conditions and the deviation would not be due to temporary shocks, the BDBR modifies its policy stance. For the most part, this is accomplished by changing the intervention interest rate (charged by the Central Bank of Colombia on short-term liquidity operations).

## COMMUNICATION AND TRANSPARENCY

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

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The annual variation in consumer prices so far this year has surpassed the target range set for inflation in 2008 (between 3.5% and 4.5%). Most of this increase is the result of supply shocks to the economy, such as severe changes in climate and rainfall, coupled with soaring international prices for oil and agricultural raw materials. Nevertheless and despite far less growth in internal demand (particularly as of the second quarter of 2008), the average for the various core inflation indicators shows no clear signs of easing. This could be due to more pronounced inflation inertia as a consequence of the international price shock.

Annual inflation at September was 7.57%, having declined slightly compared to the year's high point in August (7.87%). The downturn stemmed from the reduction in food inflation, which went from an annual increase of 14.2% at August to 12.8% at September.

The annual increase in the non-food consumer prices index (CPI) has been slow but steady throughout the year, and was 5.2% by September 2008. Regulated price inflation also increased, but more so, and was 10.5% by the third quarter. During the same period, tradable and non-tradable inflation without food and regulated prices came to 2.2% and 5.1%, respectively. The average of the three core inflation indicators published by the Central Bank of Colombia rose again in September 2008 to 5.9%, having been 5.6% the quarter before.

These figures helped to place inflation expectations at twelve months above the 2008 target range for inflation. In fact, inflation expectations generated on the basis of TES interest rates, as well as the two surveys conducted by the Central Bank, place inflation at above 5.3% in October 2009. This last figure also includes inflation expectations for a longer term (five years) based on government paper.

Regardin companies costs continued to increase during the third quarter of 2008. To begin with, the producer price index (PPI) rose again and was 9.8% in September. Based on the origin of goods, upward pressure was observed in the produced and consumed component, and in the imported component. As for the different branches of economic activity, the PPI increase is largely explained by the build-up in the industrial PPI (7.2%). Secondly, the wage indicators that are available show stability in the pace of wage hikes, even though the rates of increase are higher than the inflation target for this year. The figures for August show nominal wages in industry and commerce rose by about 6%, while the variation in construction wages was close to 7% by September.

As noted in the last edition of this report, the slowdown in economic activity in Colombia during 2008 is the result of several supply and demand shocks that are difficult to quantify. The most relevant ones were the high base of comparison represented by GDP growth in 2007, which probably was not sustainable in the long term; the restrictions on trade with Venezuela; the Central Bank's active monetary policy; and local government delay in making public investments, given the change in mayors and governors. Moreover, higher prices for food and fuel reduced the purchasing power of agents in the economy and raised production costs for companies, thereby affecting economic growth.

Consequently, the average annual increases in GDP for the first and second quarters of 2008 (4.5% and 3.7%, respectively) continue to reflect an important major slowdown compared to high average growth during the last two years (7.3%).

The drop in internal demand was the factor that contributed the most to the decline in economic growth between the first and second quarters. The slowdown in household consumption (from 3.4% to 3.1%), as well as less investment in civil works (which went from -14.6% to -13.8%), explain the bulk of this situation. Investment without civil works was the most dynamic component of internal demand (17%). Real exports and imports in pesos slowed, but continued to grow at a good rate during the second quarter (at around 10%).

On the external front, the international macroeconomic situation continued to weaken more than expected, particularly as of mid-September when Lehman Brothers went bankrupt. Therefore, the primary concerns remain focused on the financial crisis and the recession that already is evident in the United States, its spread to the world's more prosperous economies, the increase in international restrictions on credit and the negative impact it could have on economic activity the world over. Up to now, the recovery plans adopted by economic authorities in the United States and Europe to recapitalize leading international financial institutions with public funds and to put liquidity into the system, have yet to succeed in fully re-establishing credit channels and in lowering the cost of borrowing.

The negative prospects for world growth, which were accentuated at the end of the third quarter, pushed down international prices for oil and other commodities, following a substantial rise up to mid-July. The world security markets experienced sharp price declines, and the currencies of the developing countries sharply lost value against the dollar. Colombia was no stranger to these situations. Consequently, lower terms of trade, a weaker world economy, restrictions on international lending and the higher cost of external financing are the factors that may have a significant impact on economic activity in the emerging countries, including Colombia.

In view of the macroeconomic context described above, the Board of Directors of the Central Bank of Colombia (BDBR) raised the Bank's benchmark rate from 9.75% to 10% at their meeting on July 25th. However, in August, September and October, it was considered prudent to leave it unchanged. Nonetheless, a press bulletin on the most recent meeting warned that "weak demand and the recent drop in international prices should spell less inflationary pressure in the future. To the extent that mid-term inflationary pressures continue to abate, it would be appropriate to consider moving towards a less restrictive monetary stance."

Furthermore, given the international turbulence, the Board of Directors decided to eliminate the deposit on external borrowing, effective as of October the 9th. And, at a BDBR´s meeting on October the 24th, the following measures were adopted to supply liquidity in order to facilitate operation of the monetary and loan markets to facilitate the operation of monetary loan markets:

To reduce bank´s reserve requirements from 11.5% to 11% for current and savings accounts, and a reduction from 6% to 4.5% for term deposits under 18 months. These cuts will take effect as of the two-week reserve maintenance period scheduled to being on November 19. The measure is expected to free up nearly one trillion pesos by December.

To extend from two to three weeks in the reserve calculation for the end of the year.

To provide temporary liquidity provided through 14 and 30-day repo operations, in amounts to be announced in due course.

The definitive purchase of Col$ 500 billion in TES, plus the peso equivalent of the sale of foreign exchange through the call option system.

The reverse-repo auctions through remunerated deposits not constituent of requirements will be closed temporarily. The Lombard contraction window will be left open.

The Board will continue to monitor the international situation carefully, along with the forecasts for inflation and growth. It reiterates that monetary policy in the future will depend on the new information that become available.

Board of Directors, Central Bank of Colombia.

# INFLATION REPORT

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# I. Inflation and its Determining Factors

Third-quarter inflation surpassed the Central Bank's forecasts. Food and regulated prices continued to exert pressure in this respect.

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Demand-pulled inflationary pressure would have eased, as suggested by less installed capacity utilization, but prices would have been affected by factors such as higher raw material costs and added expectations.

Growth during the second half of the year was less than anticipated, owing to the presence of negative external shocks to both supply and demand.

The pace of growth in employment slowed in the last few months.

## A. RECENT DEVELOPMENTS IN INFLATION

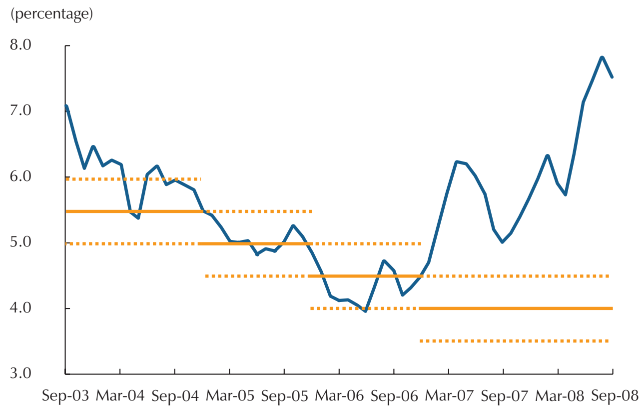
### 1. Core Inflation

Between July and August, consumer inflation continued to grow as predicted in the last edition of this report. Inflation in Colombia during that period remained subject to pressure brought to bear by food and regulated prices, associated to some extent with high international prices. In September, the upward tendency observed since April of this year was cut short for the first time. The drop in inflation at the close of the third quarter was anticipated, but turned out to be more than the market expected.

*Annual consumer inflation was 7.6% in September.*

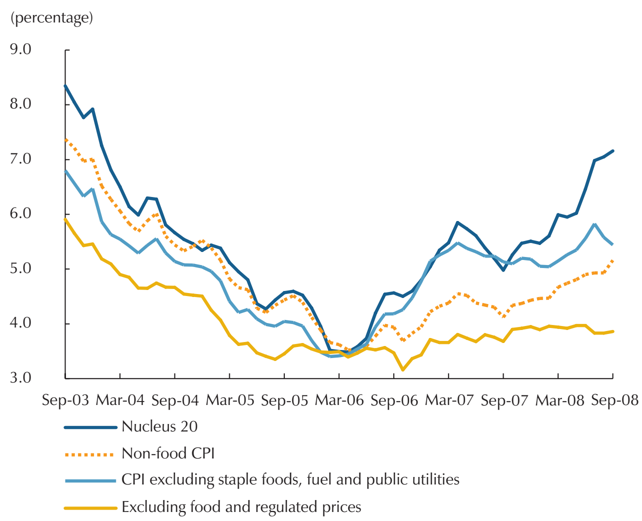
Consequently, annual consumer inflation was 7.6% by September. This is 39 basis points (bp) more than the rate in June, but 30 bp less than annual consumer inflation in August (Graph 1). The figure in August (7.9%) was the highest inflation has been so far this year and since October 2001.

Graph 1
Annual consumer inflation




Sources: DANE and Banco de la República (Central Bank of Colombia).

Graph 2
Core inflation indicators
annual variation




Source: DANE; calculations by Banco de la República (Central Bank of Colombia).

The various core inflation indicators either increased in the last three months or remained at the levels observed in June. With the exception of inflation without food and regulated prices, which has been stable around 4% for several quarters, the other indicators continue to exceed the target range for 2008 (between 3.5% and 4.5%). For instance, annual non-food inflation was 5.2% in September as opposed to 4.9% in June (Graph 2). It has increased slowly since mid-2007, pushed up largely by prices of fuel, public transportation and public utilities.

Generally speaking, core inflation in Colombia has been subject to pressure from higher international prices, of raw materials, which would mean higher production costs. Although the momentum in aggregate demand has languished, exhibiting less performance than was anticipated in earlier reports, this has not reduced the pace of price hikes as a whole, perhaps because of the upward factors mentioned earlier, coupled with the reactivation of several indexing mechanisms.

The regulated consumer price index (CPI), which includes public utilities, public transportation and fuel, is the clearest example of price changes due to indexing and higher costs. Inflation in this sub-basket has increased steadily since the end of last year, having accelerated sharply during the third quarter, more than was anticipated in earlier reports. In September, the annual rate was 10.5%, with regulated price inflation accounting for nearly 30% of the rise in consumer inflation during the year to date and all of the increase in non-food inflation (Table 1 and Graph 3).

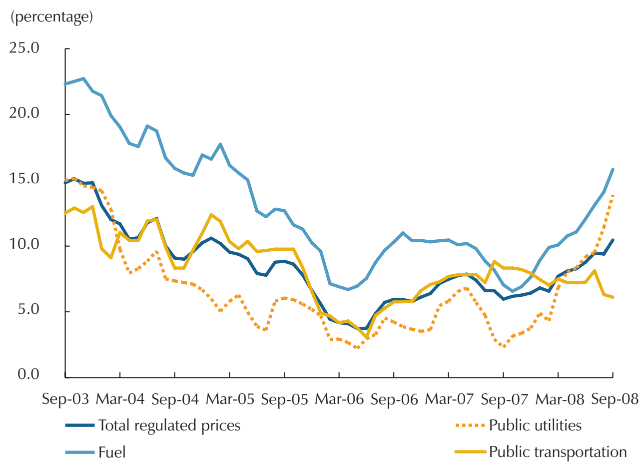
In the case of public utilities, both electricity and gas ended the third quarter with annual rate increases above 16%, while the hike in water and sewage rates reflected annual adjustments on the order of 10%. Most of the public utility rate hikes are related to the build-up in consumer inflation during the course of the year, which activated the indexing mechanisms incorporated into the formulas used to regulate certain utility rates. For that reason, and due to cost increases, the current year has seen two sharp adjustments in these prices (in March-April and August-September). This is in contrast to past years, when there was only one rate hike. Soaring oil prices towards mid-year also helped to raise gas prices, but with some delay.

Table 1
Annual inflation breakdown by upward pressure at September 2008
(percentage)

| Description | Weight | Annual growth | | | | | Share of build-up- year to date |
|---|---|---|---|---|---|---|---|
| | | Dec-07 | Mar-08 | Jun-08 | Aug-08 | Sep-08 | |
| **Total** | **100.00** | **5.69** | **5.93** | **7.18** | **7.87** | **7.57** | **100.00** |
| **Non-food** | **70.49** | **4.43** | **4.67** | **4.90** | **4.93** | **5.16** | **24.78** |
| Tradables | 24.67 | 2.28 | 2.36 | 2.18 | 2.25 | 2.16 | (2.25) |
| Non-tradables | 36.77 | 5.19 | 5.09 | 5.27 | 4.98 | 5.08 | (2.08) |
| Regulated | 9.04 | 6.42 | 7.71 | 8.76 | 9.40 | 10.46 | 29.12 |
| **Food** | **29.51** | **8.51** | **8.61** | **11.98** | **14.18** | **12.77** | **75.22** |
| Vegetables, fruits, tubers and milk | 7.15 | 6.66 | 6.59 | 22.22 | 28.22 | 23.72 | 76.56 |
| Cereals, oils and others | 5.35 | 9.12 | 11.13 | 15.71 | 18.22 | 16.54 | 23.73 |
| Food outside the home and others | 9.52 | 7.65 | 6.77 | 7.01 | 7.11 | 7.07 | (2.28) |
| Beef and substitutes | 7.48 | 11.12 | 11.36 | 3.65 | 4.66 | 5.18 | (22.80) |

Source: DANE; calculations by Banco de la Republica (Central Bank of Colombia).

Graph 3
Regulated CPI
annual variation



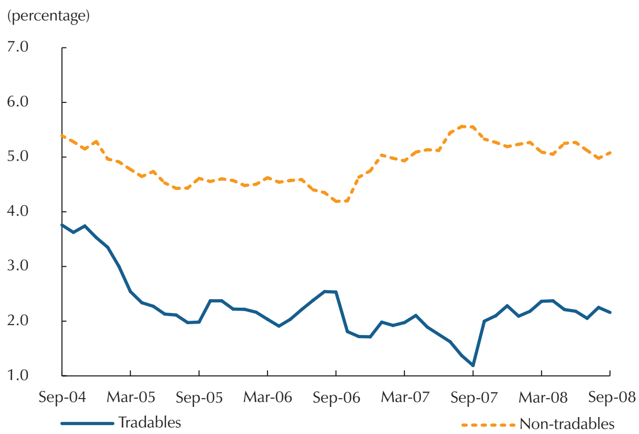

Source: DANE; calculations by Banco de la República (Central Bank of Colombia).

On the other hand, gasoline and public transportation prices in Colombia during the third quarter continued to be affected by rising international fuel prices during the first half of the year. By September, annual inflation in these items was well beyond the targets for 2008 (Graph 3). The decline in external prices in recent months has not been passed on to internal prices, partly because the reductions coincided with depreciation in the peso. Given international prices in September and the exchange rate at the time, gasoline prices in Colombia continued to include an important subsidy, due to the formulas used by the government to regulate them.

The other two major components of the non-food CPI ( tradables and non-tradables excluding regulated prices) exerted no upward pressure on inflation in the last three months, nor during the course of the year to date. Annual inflation in both these sub-baskets has remained stable, near the levels observed in the first half of the year: 2.2% for tradables and 5.0% for non-tradables (Graph 4). However, because demand is weak, some reduction was to be expected, at least in the case of non-tradable inflation, particularly in view of the fact that it was above target.

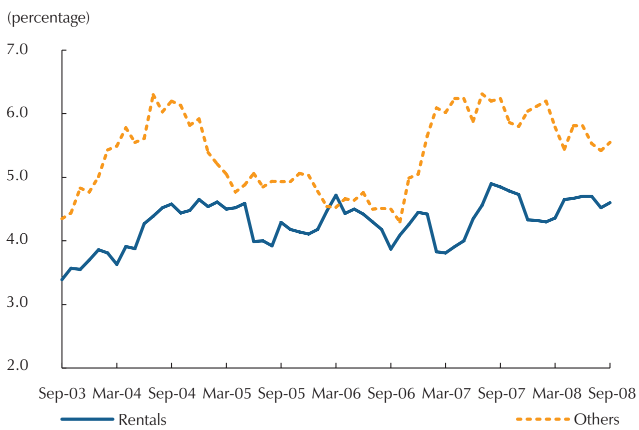
Rentals, as part of non-tradables without food and regulated prices, account for most of the sub-basket (33%) and continued to exhibit stable inflation (around 4.5%). The rest of the sub-basket experienced slightly lower inflation

Graph 4
Annual variation in tradable and non-tradable CPI, without food and regulated prices




Source: Banco de la República (Central Bank of Colombia).

Graph 5
Non-tradable Inflation, rentals and others




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

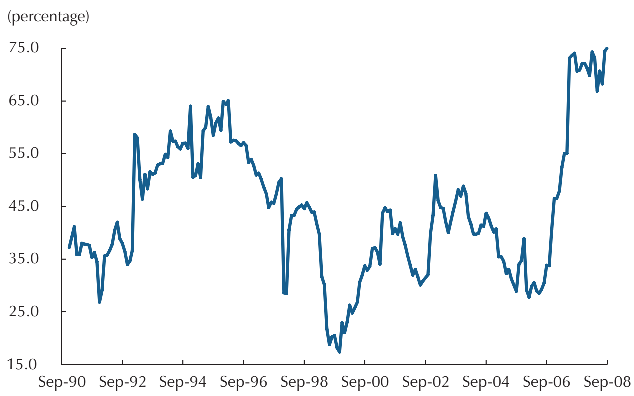
during the quarter, but with high adjustments in relation to the target set by the Central Bank (Graph 5). The only clearly downward pressure so far this year, including the last three months, is from prices of goods and services associated with entertainment, culture and recreation.

As to tradable inflation without food and regulated prices, the considerable degree of stability exhibited for several quarters stands out against the sharp fluctuations in the exchange rate during the course of the year (Graph 4). The appreciation witnessed during the first half of the year has yet to translate into a lower indicator. At the time, this was attributed to the increase in external prices and costs, and in transportation prices and costs. Nevertheless, the depreciation registered since June has not led to a build-up in inflation, possibly due to the normal lag of more than one quarter between the exchange rate and internal prices. Even so, there are signs supported by econometric studies[1] that suggest lower exchange rate pass-through in Colombia and in other countries them in the past. Added to this is the fact that internal demand is weaker than in past years.

An important aspect to emphasize with respect to the recent momentum in inflation in Colombia is the generalized tendency towards price hikes that exceed the inflation targets for 2008. The diffusion indicator estimated by the Central Bank, which measures the percentage of the CPI that is above the mid-point of the target range (4.5%), shows a substantial increase in recent months, so much so that it is now the highest it has been in the last two decades (Graph 6). The suggestion is that pressure on prices has been extended to include a large number of goods and services, although the major increases are associated with external prices for raw materials.

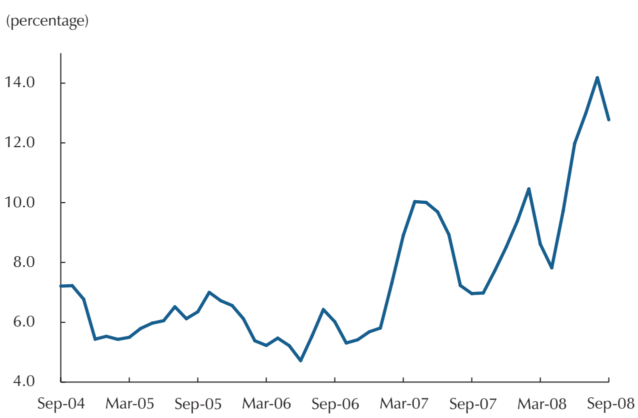
1 A. González, H. Rincón and N. Rodríguez, "La transmisión de los choques a la tasa de cambio sobre la inflación de los bienes importados en presencia de asimetrías," Borradores de Economía, No. 532, Banco de la República de Colombia, 2008. H. Rincón, E. Caicedo and N. Rodríguez, "Efectos del *passthrough* de la tasa de cambio: un análisis desagregado de las importaciones colombianas," Borradores de Economía, No. 330, Banco de la República de Colombia, 2005. E. Rosas, *El pass-through del tipo de cambio en Colombia: un análisis sectorial,* Dissertation for a Masters Degree, School of Economics, Universidad de los Andes, Colombia, 2004.

Graph 6
Weighted inflation distribution index




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

Graph 7
Food CPI
annual variation




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

## 2. Food Inflation

During the third quarter and according to the forecast, food inflation continued to rise, but not as quickly as during the first half of the year. In September, annual inflation in the food group declined for the first time since April, placing the rate at 12.8% (Graph 7). In the third quarter and so far this year, food has been responsible for the bulk of the increase in consumer inflation during 2008 (Table 1).

As mentioned in earlier editions of this report, food prices have risen substantially since early 2007, not only at the local level but also internationally. The fact that many countries failed to meet last year's inflation targets was due basically to higher food inflation. This phenomenon is associated with higher prices of oil and oil substitutes, particularly bio-fuels, which compete with food production. The increase in oil prices also led to sharply higher costs for transportation and other important elements of agricultural production, both worldwide and in Colombia.

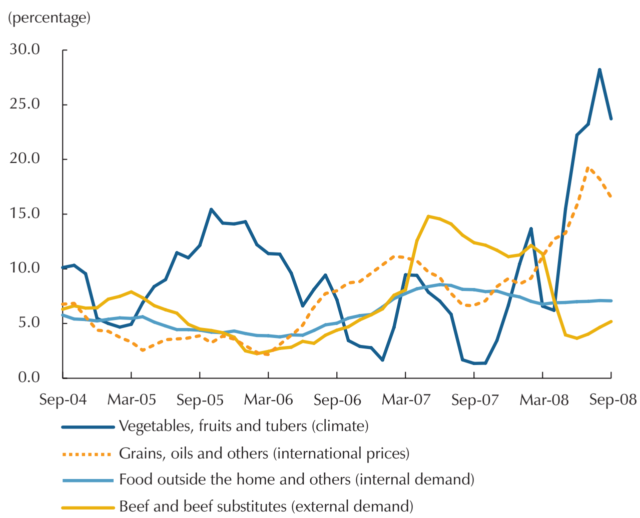
The build-up in external costs and prices has been passed on to internal inflation in Colombia since last year. However, this process became more pronounced during the first six months of 2008. Prices for imported foods, such as grains and oils, have been the most sensitive to these hikes. Besides exhibiting historically high levels at the end of 2007, this segment of the CPI (oils, grains and others) registered sharp increases during the first half of the year, placing its annual rate of inflation at around 16% (Table 1). The increases continued during the third quarter, but were not as pronounced as in earlier quarters. This would have been due to the reduction in external prices, which offset depreciation in the peso against the dollar.

The rise in production costs as a result of higher costs for transportation and chemicals used in agriculture, among other items, also affected the price of other foods, not necessarily those imported by Colombia. Perishables are a case in point. There has been an upward trend in relative perishable prices for several quarters, and they have been affected throughout the year by internal actors related to the agricultural supply cycle[2], weather and the freight transport strike.

2 The amount of land planted in potatoes declined sharply during the first half of the year in response to a long period of relatively low prices. Potato prices declined in the third quarter, due to a major recovery in supply.

The steep rise in annual inflation during the first half of the year with respect to the food group comprised of vegetables, fruits, tubers and milk is explained by all of the above and continued up until August (Table 1). However, prices dropped considerably in September. In the case of vegetables, information from producers shows there has been less of an increase in supply than in demand for some time, which also explains why inflation in this sub-basket exceeds the targets set by the Central Bank (Graph 8).

Graph 8
Food inflation broken down by causes, annual variation




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

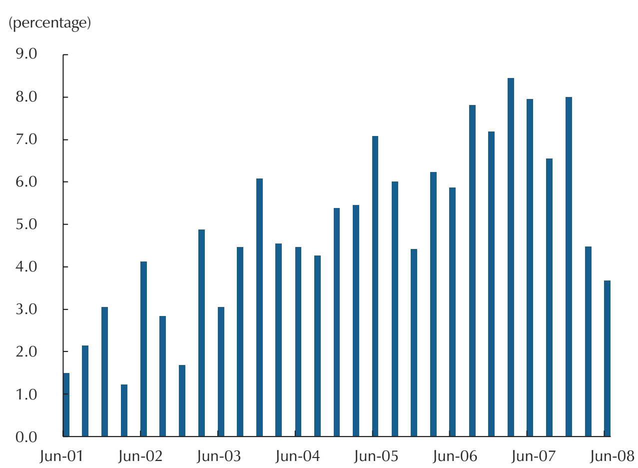
Finally, a high point with respect to foods is the favorable performance exhibited so far this year and in the third quarter, particularly with respect to prices of meat and meat substitutes, compared to the sharp increases reported in 2007. A more favorable supply, coupled with less momentum in demand, both in Colombia and in Venezuela, may have contributed to this situation.

## B. FACTORS THAT DETERMINE INFLATION

### 1. Aggregate Demand in the Second Quarter

The slowdown in the Colombian economy during the second quarter was faster than anticipated. The growth figures reported by DANE for that period (released at the end of September) show an annual increase of 3.7%. Growth during the first half of the year was up to 4.1%, and the figure for the first quarter was revised from 4.1% a 4.5% (Graph 9).

Graph 9
Annual GDP growth




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

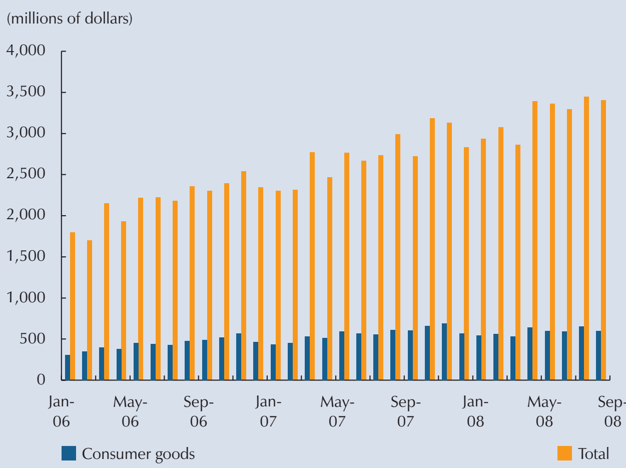
Interest rate hikes and other monetary-policy decisions adopted since mid-2006 explain part of the slowdown in economic growth in Colombia this year, and were contemplated in the Central Bank's forecasts. However, during the second quarter, other factors apart from monetary policy continued to exert a negative impact on the pace of growth, specifically the restrictions on trade to Venezuela, the reduction in civil works, the drop in real household income due to higher inflation, and the rise in transportation and production costs in general, owing to higher prices for fuel and other raw materials.

The reduction in the speed of economic growth between the first and second quarters was concentrated in internal demand. Gross capital formation (GCF),

## Imports

For imports as a whole, the latest figures released by DANE show no major changes in the tendencies regarding growth. During the past five months, with figures up to August, Colombian imports (CIF) in dollars continued to increase at an average annual rate of 24%, which is slightly higher than during the first quarter of the year (20%), but similar to growth in the fourth quarter of 2007 (26%) (Graph A). In tons, the recent trends show no significant change, although growth rates are down: 5% annual for the period in question, on average.

Graph A
Merchandise imports




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

Nonetheless, imports of consumer goods have slowed considerably during the last five months, both in value and volume. As a result, the average annual increase in dollars between April and August was 9%, following an annual increase of 16% in the first three months of the year and 23% by the end of 2007 (Graph A). Durable goods and particularly vehicles for individual use were the subsectors that slowed the most.

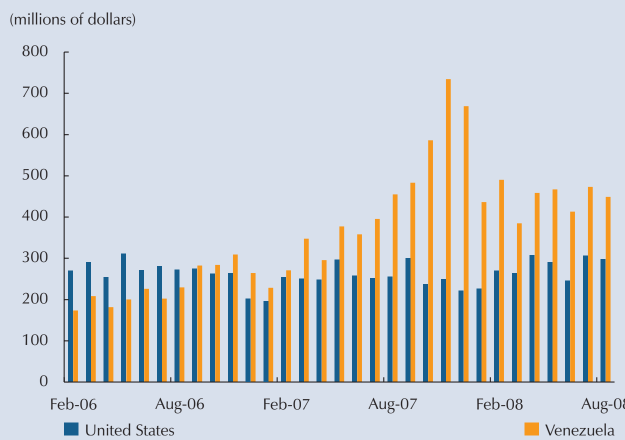
Imports of capital goods in dollars decelerated as well, but not as much as imports of consumer goods. On the contrary, raw material imports experienced a significant rise in value during the last five months; however, this was partly because of higher international prices for raw materials. In dollars, imports of capital goods expanded at an average annual rate of 20% during the period in question, while raw material imports were up by 35%.

## Exports

The last five months saw no major change in tendency with respect to exports in dollars (excluding gold) compared to the situation at the start of the year and at the end of 2007. Annual growth during the period from April to August averaged 38%, which is high from a historical standpoint. However, this performance encompasses two opposing tendencies: a build-up in traditional exports, on the one hand, and a slowdown in non-traditional exports on the other.

The added growth in traditional exports in dollars (60% annual in April-August) was possible thanks to exceptional mining sales, particularly in the case of oil. The annual increase in mining sales during that period was 117%, bolstered by good international prices. When analyzed by destination, one sees the largest slowdown was in sales to Venezuela, which went from 132% annual growth in the fourth quarter of 2007 to 20% in April-August. Although sales to Venezuela remain strong (nearly US$450 million per month), they have experienced somewhat of a standstill so far this year, and are less than those registered at the end of 2007. If this tendency were to continue, we could see negative growth rates towards the end of 2008. Based on the latest figures, non-traditional exports to the United States accelerated during the months in question, registering 11% annual growth compared to -3% in the last quarter of 2007 and 8% in the first quarter of this year (Graph B).

Graph B
Non-traditional exports to the United States and Venezuela




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

*Colombian GDP rose 3.7% during the second quarter, which was less than expected.*

together with government consumption, were the items that slowed the most. Growth in household consumption was similar to what it was during the first quarter, despite being low and less than anticipated (Table 2).

Table 2
Real annual GDP growth by type of expenditure
(percentage)

| | 2006 | 2007 | | 2008 | |
|---|---|---|---|---|---|
| | | Total | IV Qtr. | I Qtr. | II Qtr. |
| **Final consumption** | **6.0** | **6.5** | **6.0** | **3.3** | **2.8** |
| Households | 6.5 | 6.7 | 6.0 | 3.4 | 3.1 |
| Government | 4.2 | 5.9 | 6.0 | 3.1 | 1.7 |
| **Gross capital formation** | **19.2** | **20.6** | **18.9** | **13.1** | **8.4** |
| **Final local demand** | **8.7** | **9.7** | **9.0** | **5.7** | **4.2** |
| **Total exports** | **7.5** | **11.9** | **21.8** | **14.1** | **11.6** |
| **Total imports** | **16.2** | **19.0** | **20.9** | **15.4** | **10.5** |
| **GDP** | **6.8** | **7.7** | **8.0** | **4.5** | **3.7** |

Source: DANE. calculations by Banco de la República (Central Bank of Colombia).

Civil works, as part of GCF and associated largely with public investment projects, declined by 13.7% during the second quarter, which is comparable to the percentage observed the quarter before. As mentioned in the last edition of this report, the decline in spending on civil works is related to the turnover in local government officials at the start of the year. As was the case four years ago, local and regional authorities are spending the first year of their term drafting development plans. This temporarily puts the brakes on budget spending, especially for investment.

The rest of fixed GCF (excluding accumulated inventory) is associated largely with decisions by the private sector and most of it continued to expand at a high rate that surpassed the growth in internal demand. Components such as machinery and equipment continued to increase at annual rates higher than 20%, as was the case in earlier quarters. Investment in buildings experienced a similar situation. Investment in transport material was the only segment to witness a setback (-6.4% annual). Moreover, inventory accumulation slowed sharply, but still managed to increase by more than 10%.

*Growth continued to be affected by factors unrelated to the country's monetary policy.*

Government consumption was up by only 1.7% in the second quarter, after posting an annual increase of 3.1% in the first quarter. Household consumption rose 3.1%, which is similar to the increase reported the quarter before, but much less than the figure observed in the second half of 2007 and below the

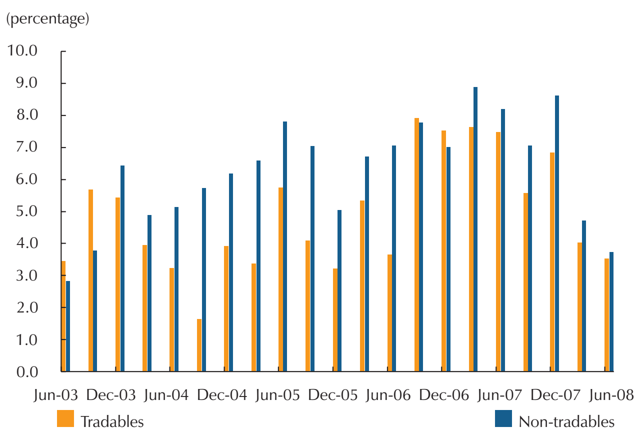
*Available household income would have been affected by higher food prices.*

Bank's forecast. The slowdown in private consumption during 2008 is due to the standstill in spending on durable goods, mainly automobiles. This clearly is related to the monetary-policy changes adopted as of mid-2006, but also to factors such as the shock to disposable income as a result of higher prices for food, energy and transportation. Durable goods consumption has grown at two-digit rates during the last few years.

As to real exports in pesos, the second quarter of 2008 saw less momentum than was reported during the first quarter, but expansion was still above 11%, which is high. Most of the slowdown was in metallic minerals, textiles and furniture. A sharp drop in transport equipment exports was reported during the second quarter (approximately 50%). Much of the reduction in growth can be attributed to lower demand from Venezuela.

Imports in pesos (which are subtracted from gross domestic product-GDP) saw an annual increase of 10.5% by the second quarter, which is 5.2 percentage points (pp) less than the figure reported in the first quarter. Textiles, transport equipment and hotel, postal and telecommunication services were the sectors that slowed the most.

Graph 10
Annual GDP growth in tradables and non-tradables




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

On the supply side, the weakening in GDP remains generalized and include tradable and non-tradable sectors alike (Graph 10). The annual increase in tradable GDP was 3.5%, which is 0.5 pp less than the quarter before. The manufacturing industry and maritime and river shipping services were the tradable sectors that experienced the least growth (Table 3). The annual variation in non-tradable GDP was 3.7%, which is 1 pp less than during the first quarter of 2008. Social, community and personal services, together with indirect taxes and hotel services were the sectors with the poorest performance in the second quarter (Table 3).

## 2. Labor Market and Wage Costs

The job figures by the third quarter of 2008 reflected a sharp slowdown in the new job creation rate. Coupled with a labor supply that continued to grow at a good pace, this led to higher unemployment, thus cutting short the downward tendency observed in this variable since 2006.[3]

3 Leaving out the slight increases observed in the unemployment rate during 2006, part of which may be associated with changes in methodology, the downward tendency began in 2002.

*The job creation rate was more moderate.*

Table 3
Real annual GDP growth by sector
(percentage)

| | 2006 | 2007 | | 2008 | |
|---|---|---|---|---|---|
| | | Total | IV Qtr. | I Qtr. | II Qtr. |
| Agriculture, forestry, hunting and fishing | 2.7 | 3.4 | 3.9 | 3.8 | 3.6 |
| Mining and quarries | 3.2 | 2.7 | 5.4 | 4.8 | 7.6 |
| Electricity, gas and water | 6.7 | 9.5 | 8.0 | 2.1 | 1.1 |
| Manufacturing industry | 3.1 | 3.3 | 3.0 | 0.6 | 1.7 |
| Construction | 13.5 | 13.9 | 19.6 | 0.8 | 0.3 |
| Buildings | 11.8 | 1.2 | 5.6 | 25.4 | 25.7 |
| Civil works | 14.8 | 23.4 | 30.0 | (14.6) | (13.7) |
| Commerce, repairs, restaurants & hotels | 8.3 | 9.9 | 8.6 | 3.2 | 3.6 |
| Transport, storage & communication | 9.2 | 10.1 | 11.7 | 7.2 | 4.7 |
| Financial, insurance, real estate and business service companies | 6.7 | 6.7 | 7.2 | 7.0 | 5.3 |
| Social, community and personal services | 4.7 | 3.9 | 4.4 | 3.9 | 2.7 |
| Sub-total: Aggregate value | 6.4 | 7.1 | 7.5 | 4.1 | 3.4 |
| Taxes minus subsidies | 11.6 | 15.0 | 13.6 | 8.5 | 6.8 |
| **GDP** | **6.8** | **7.7** | **8.0** | **4.5** | **3.7** |

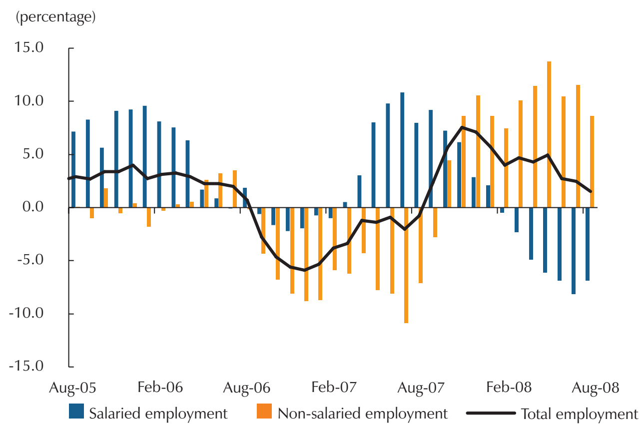
Source: DANE; calculations by Banco de la República (Central Bank of Colombia).

According to the Comprehensive Household Survey (GEIH: Spanish acronym) conducted by the National Bureau of Statistics (DANE), the annual increase in the total number of employed, which is part of the national aggregate, was 2.0% in the third quarter, as opposed to 3.8% on average in the first half of the year (Graph 11). As was the case during the two previous quarters, the increase continues to be based solely on non-salaried employment, particularly self-employment, which was up by an annual rate of 19.3%. In contrast, salaried employment (private and public) declined at an annual rate of 8.1%, having dropped for three quarters in a row.

The sharp rise in self-employment during recent quarters is due mainly to an extremely low basis of comparison with respect to 2007. This was more the result of methodological changes introduced by DANE, than a significant increase in the level of employment so far this year. If those tendencies continue, expansion in non-wage employment might be in negative terrain by the end of 2008 or early 2009.

Table 4 shows how a more moderate demand for employment in the third quarter translated into a lower annual increase, or even reductions in occupation rates

Graph 11
Job Creation
(employed persons in the national total, third-order moving average)




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

(OR). At the same time, one continues to see a build-up in the labor supply, measured by the global participation rate (GPR), all of which led to an increase in the number of unemployed and, therefore, higher rural and urban unemployment rates in the third quarter, with respect to the same period in 2007. These rates were 11.4% and 11.5% for the national total and the thirteen major cities, respectively, which is 0.5 pp more than last year for both aggregates.

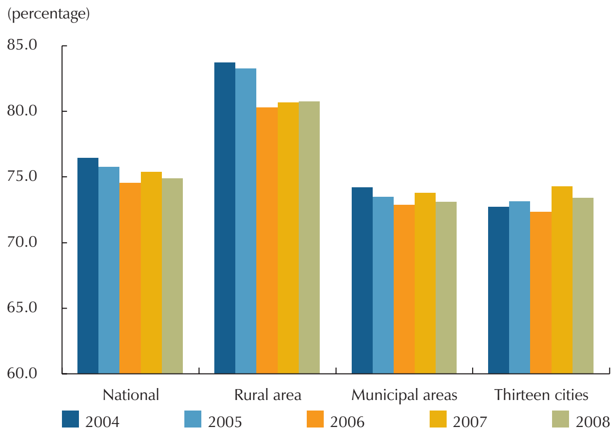
The deterioration in employment indicators is most obvious among household heads, which is usually the segment of the population with the most stable job conditions. By the third quarter of this year, the occupation rate for household heads reflected a

Table 4
Job market indicators (moving quarter)

| | Quarter (July-August-September) | | | | | | Previous quarter [a/] |
|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2008 | Difference between 2007 and 2008 | Difference between 2007 and 2008 |
| Global participation rate | | | | | | | |
| National | 60.9 | 60.7 | 58.7 | 57.9 | 58.4 | 0.5 | 0.5 |
| Rural area | 57.0 | 57.2 | 53.8 | 51.1 | 51.1 | 0.0 | (0.7) |
| Municipal areas | 62.3 | 61.8 | 60.3 | 60.0 | 60.7 | 0.7 | 0.8 |
| Thirteen cities | 63.6 | 63.5 | 61.5 | 61.9 | 63.0 | 1.1 | 0.7 |
| Employment rate | | | | | | | |
| National | 53.1 | 53.6 | 51.2 | 51.6 | 51.7 | 0.2 | 0.5 |
| Rural area | 52.1 | 53.3 | 48.4 | 47.0 | 46.3 | (0.7) | (0.5) |
| Municipal areas | 53.5 | 53.7 | 52.2 | 53.0 | 53.4 | 0.4 | 0.8 |
| Thirteen cities | 54.2 | 54.8 | 53.7 | 55.1 | 55.8 | 0.7 | 0.6 |
| Unemployment rate | | | | | | | |
| National | 12.8 | 11.6 | 12.7 | 10.9 | 11.4 | 0.5 | (0.1) |
| Rural area | 8.6 | 6.7 | 10.0 | 8.1 | 9.4 | 1.3 | (0.2) |
| Municipal areas | 14.1 | 13.1 | 13.5 | 11.7 | 12.0 | 0.3 | (0.2) |
| Thirteen cities | 14.8 | 13.8 | 12.7 | 11.0 | 11.5 | 0.5 | 0.1 |

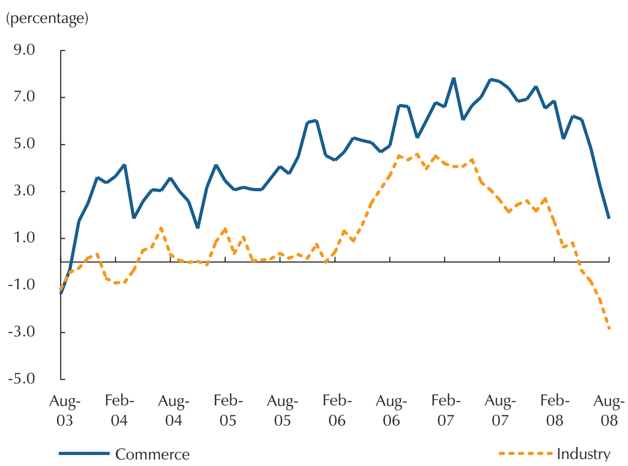
a/ Pertains to absolute annual variations and percentages for the third quarter (April-May-June).
Source: DANE-GEIH

Graph 12
Occupation rate among household heads
(July-August-September)




Source: DANE-GEIH; calculations by Banco de la República (Central Bank of Colombia).

Graph 13
Employment in industry and commerce
annual variation




Source: DANE, calculations by Banco de la República (Central Bank of Colombia).

setback compared to the same quarter in 2007 (Graph 12). However, there were no GPR increases among household heads. This prevented unemployment rates from being higher.

A look at the GRP for different segments of the population shows the increase in labor supply mentioned earlier originated mostly with secondary workers in the household as opposed to household heads. This phenomenon usually is associated with a reduction in the purchasing power of the nominal wages of household heads or with fewer employment possibilities for household heads. The economic slowdown and higher inflation in recent quarters might explain these recent tendencies in the labor supply.

The sector surveys confirm less growth in employment. The job cuts in industry that began during May of this year increased recently (employment was down by 2.8% in August) and are no longer concentrated solely in temporary employment. They include permanent employment as well. Although employment in commerce continued to grow, the pace has slowed considerably; the annual increase by August was 1.8%, as opposed to an average annual increase of 5.3% for the second quarter (Graph 13).

Despite these tendencies, the social security indicators continue to show a good measure of growth in the number of affiliates, although not as much as the quarter before. However, the recent figures may include some distortions, given the new methods used to collect data and the new incentives to join the social security system (Table 5).

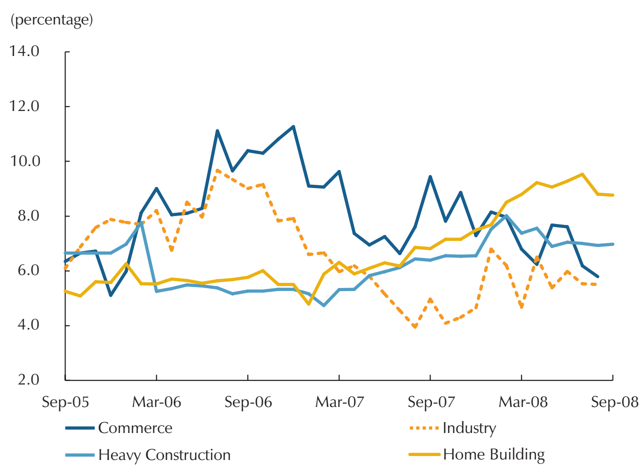
In general, the employment figures show the job market is not tight, which should mean less wage pressure in the future, provided inflation expectations are kept in check. By August, nominal wages were rising at rates similar to those registered the quarter before, and were above the inflation target, although not necessarily higher than observed inflation. The annual variation in nominal wages in industry and commerce was still around 5.8% in August, which led to a decline in real wages in those sectors. Wages in the construction industry also maintained the growth rates observed during the previous quarter in terms of both heavy construction and home building. This last segment of

Table 5
Indicators of social security in the national total

| Subsystems | 2007 | 2008 | Cutoff dates | Absolute variation 2007-2008 | Percentage variation | |
|---|---|---|---|---|---|---|
| | | | | | 2007-2008 | Three months before |
| Workers affiliated with family subsidy funds September | 5,238,009 | 5,616,494 | September | 378,485 | 7.2 | 9.6 |
| Professional risk management affiliates | 5,882,252 | 6,124,281 | June | 242,029 | 4.1 | 4.1 |
| Active pension fund contributors (ISS + AFP) | 5,394,734 | 5,578,375 | July | 183,641 | 3.4 | 2.5 |
| ISS Pension contributors | 1,870,840 | 1,840,315 | July | (30,525) | (1.6) | (11.5) |
| Mandatory pension fund contributors | 3,523,894 | 3,738,060 | July | 214,166 | 6.1 | 11.4 |
| Voluntary pension fund contributors | 488,304 | 517,848 | August | 29,544 | 6.1 | 4.7 |

Source: Ministry of Social Protection, with data from the Social Security Institute Professional Risk Management Department, the Superintendent of Finance and the Family Subsidy Superintendent.

Graph 14
Nominal Wage Index
annual variation




Source: DANE-MMCP-MMM.

the job market continues to register the largest wage increases among the segments for which figures are available (8.8% for September) (Graph14). Nonetheless, all available indicators point to higher wage increases this year than in 2007, as confirmed by the figures on collective bargaining agreements (Table 6, Panel A).

Despite the relative stability of wage increases this year, the hikes outlined for 2009 in the collective agreements reached during 2008 are generally superior to those agreed on in 2007 for 2008 (Table 6, Panel B). Indexing wages to the CPI for next year, which applies to approximately 80% of the bargaining agreements, now tends to occur at rates equivalent to the observed CPI, plus one or two pp, unlike last year, when this was done at rates similar to the observed CPI, with no addition percentage points. This wage indexing mechanism could become an important source of inflationary pressure next year, particularly if applied in an environment where there is no quick decline in the other production costs.

## 3. Other Costs

The producer price index (PPI) and other cost measurements indicate the upward tendency in non-wage costs observed during the last few quarters has yet to abate. However, unlike last quarter, they suggest, that pressure was concentrated in the imported components. This could be related to recent depreciation of the peso.

By the end of the third quarter of the year, producer inflation, measured by the total PPI, continued to climb (despite a pause in August). It reached 9.8%, a rate

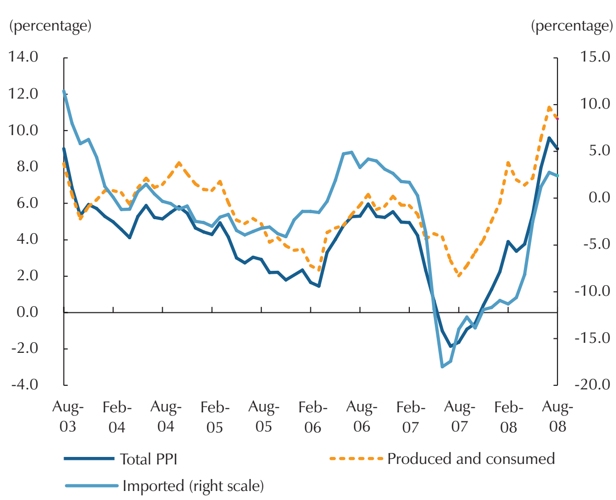
Table 6
Percentage of beneficiaries, by agreed wage increase level

| | | | | | | |
|---|---|---|---|---|---|---|
| **A. For this year** | | | | | | |
| | **<5** | **[5.6]** | **[6.7]** | **[7.8]** | **[8.9]** | **>9** |
| Agreed in 2007 (December figures) [a/] | 5.00 | 57.69 | 25.77 | 6.54 | 3.46 | 1.54 |
| Agreed in 2008 (October figures) [b/] | 2.25 | 46.85 | 31.08 | 13.06 | 4.50 | 2.25 |
| **B. For next year** | | | | | | |
| | **<7** | **>= 7** | **CPI** | **CPI + (0.1]** | **CPI + (1.2]** | **CPI+ >2** |
| Agreed in 2007 (December figures) [c/] | 9.39 | 3.76 | 36.62 | 33.33 | 13.62 | 3.29 |
| Agreed in 2008 (October figures) [d/] | 10.31 | 10.31 | 23.20 | 31.96 | 20.10 | 4.12 |

a/ 260 collective bargaining agreements nationwide.
b/ 222 collective bargaining agreements nationwide.
c/ 213 collective agreements nationwide.
d/ 194 collective agreements nationwide.
Source: Ministry for Social Protection; calculations by Banco de la República (Central Bank of Colombia).

not seen for almost five years (Graph 15). A PPI breakdown according to the origin of goods shows a build-up in inflation for the produced and consumed component, along with the imported component. However, most of the upward pressure during the last three months stemmed from the imported component, which experienced an increase in annual inflation from 1.2% in June to 5.3% in September (Graph 15). When analyzed according to the way goods are used in the economy, the PPI for intermediate consumption (raw materials) continued to reflect an upward tendency during the third quarter and registered 12.5% annual inflation in September, despite the drop in international prices.

Graph 15
PPI: Total and per economic use
annual variation

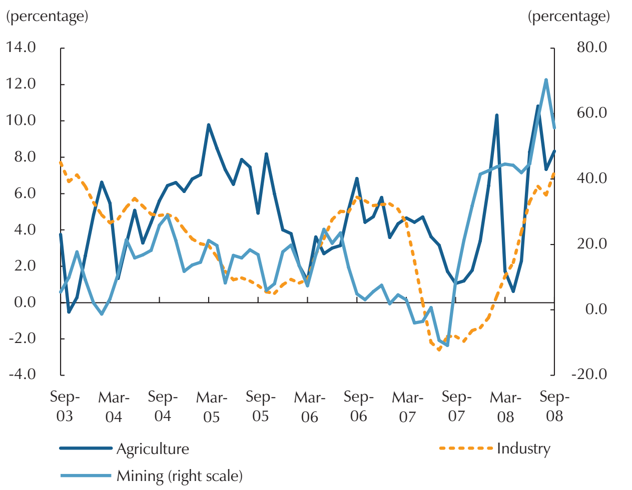



Sources: before December 2006: Banco de la República (Central Bank of Colombia); as of December 2006: DANE; calculations by Banco de la República (Central Bank of Colombia).

As to the different branches of economic activity, the rise in producer inflation was concentrated in the industrial PPI, which posted an annual rate of 7.2% in September. This is 1.4 pp more than in June (Graph 16). Given the extent to which this sub-basket contributes to the construction of the index as a whole (77.5%), its performance largely conditions the overall evolution of the PPI.

In view of the foregoing, a more detailed analysis of industrial prices, as presented in Table 7, which breaks down the build-up in industrial PPI inflation, is appropriate. The figures show the increase in industrial inflation was concentrated in imported products, which explain 61.4% of the quarterly build-up in industrial PPI. Within the sub-basket of imported items, the CIIU classifications that generated the most pressure were chemical substances (17.4%) and inorganic nitrogen fertilizers and compounds (10.7%).

Graph 16
PPI by branches
annual variation




Sources: before December 2006: Banco de la República (Central Bank of Colombia); as of December 2006: DANE; calculations by Banco de la República (Central Bank of Colombia).

The total costs indexes (wage and non-wage), which take into account a weight derived from the social accounting matrices, have increased steadily during the course of the year. As shown in Graph 17, this is due primarily to upward pressure from the non-wage component, both national and imported.

## 4. Surplus Production Capacity and Demand-pulled Pressure

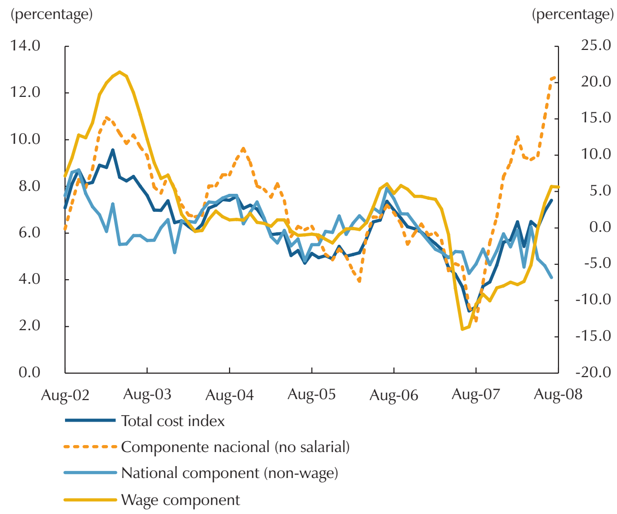
Demand-pulled inflationary pressure has declined this year as a result of more moderate economic growth. This is evident in various indicators of surplus production capacity, which still reflect a downward tendency.

Table 7
Breakdown of the monthly build-up in industrial PPI, by origin and CIIU classification
(percentage)

| Description | Weight | Annual inflation | | | | Share of the build-up | | |
|---|---|---|---|---|---|---|---|---|
| | | Mar-08 | Jun-08 | Aug-08 | Sep-08 | Monthly at Sept-08 | Quarterly at Sep-08 | Quarterly at Jun-08 |
| **Industrial PPI** | **100.0** | **1.4** | **5.6** | **5.9** | **7.2** | **100.0** | **100.0** | **100.0** |
| **Industrial PPI: produced and consumed goods** | **73.3** | **6.3** | **7.4** | **7.5** | **8.3** | **47.0** | **38.6** | **25.5** |
| Divisions that account for the largest share of the monthly build-up (at September) | | | | | | | | |
| Manufacture of products for oil refining | 3.9 | 15.5 | 16.7 | 22.5 | 25.6 | 11.0 | 24.0 | 14.1 |
| Meat and meat products preservation | 6.1 | 6.7 | 0.8 | 0.5 | 2.6 | 10.9 | 7.1 | (9.0) |
| Sugar refining | 1.4 | (15.6) | (15.9) | (5.1) | 5.1 | 10.0 | 18.1 | (0.2) |
| **Industrial PPI: imported goods** | **26.7** | **(12.3)** | **(0.6)** | **0.8** | **3.6** | **53.0** | **61.4** | **74.5** |
| Divisions that account for the largest share of the monthly build-up (at September) | | | | | | | | |
| Inorganic nitrogen fertilizers and compounds | 0.7 | 2.5 | 7.7 | 16.1 | 34.3 | 9.2 | 10.7 | 0.8 |
| Basic chemical substances | 2.3 | (10.7) | 1.5 | 11.9 | 15.1 | 5.7 | 17.4 | 6.5 |
| Manufacture of products for oil refining | 0.2 | (2.6) | 16.8 | 32.1 | 57.9 | 4.2 | 5.2 | 1.0 |

Source: DANE; calculations by Banco de la República (Central Bank of Colombia)

Graph 17
Cost index based on SAM [a/]
annual variation




a/ Social Accounting Matrix
Source: DANE; calculations by Banco de la República (Central Bank of Colombia).

Graph 18
Installed capacity versus expected demand in the next twelve months


Note: The series presented is seasonally adjusted.
Source: Fedesarrollo; calculations by Banco de la República (Central Bank of Colombia).

For example, with the figures for August, a comparison between the expected demand indicator and that of industrial installed capacity shows expected demand continued to decline, falling below its historic average (Graph 18). The situation with respect to installed capacity utilization (ICU), measured by the National Industrial Association (ANDI) and Fedesarrollo, is similar. According to both indexes, the Colombian economy has more idle capacity in 2008 than in 2006 and 2007. The ICU measured by Fedesarrollo in August was 68.6%, as opposed to an historic average of 70.8% for the month of August since 1980.

Based on this information, potential growth and the output gap in the Colombian economy during 2008 were measured again. The calculations indicate that average potential growth this year could be close to 5.0%, which is less than the estimate published in the last edition of this report (between 5.5% and 6.0%) (Graph19). The decline would be due to several factors, including a number of supply shocks this year (high prices for raw materials in the first half of the year, coupled with strikes in various sectors), which had a negative impact on supply and the marginal cost structure of the economy.

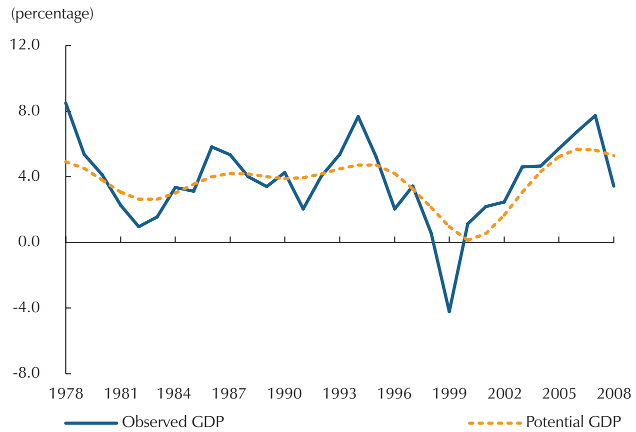
It is important to point out that potential growth also is affected by economic investment cycles. Investment has been good in recent years, accelerating potential growth. However, if there is less economic activity in the future, accompanied by lower investment, we could see a slowdown in potential growth.

Although average potential growth in the economy is expected to be less in 2008, the output-gap in this report is below of the forecast presented in the las edition of this report. (Graph 20) This is explained by the added economic slowdown witnessed so far this year, compared to what was projected, and by fewer prospects for growth during the remainder of the year, as analyzed in Chapter III.

## 5. Inflation Expectations

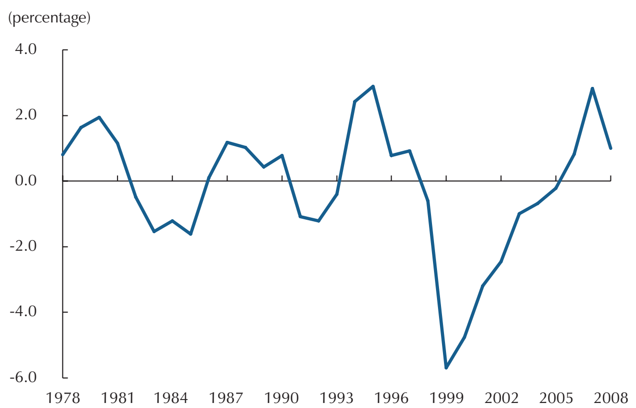
Inflation expectations remained high during the third quarter compared to the targets set by the Central Bank. Nevertheless, a number of indicators show some

Graph 19
Observed and potential GDP growth



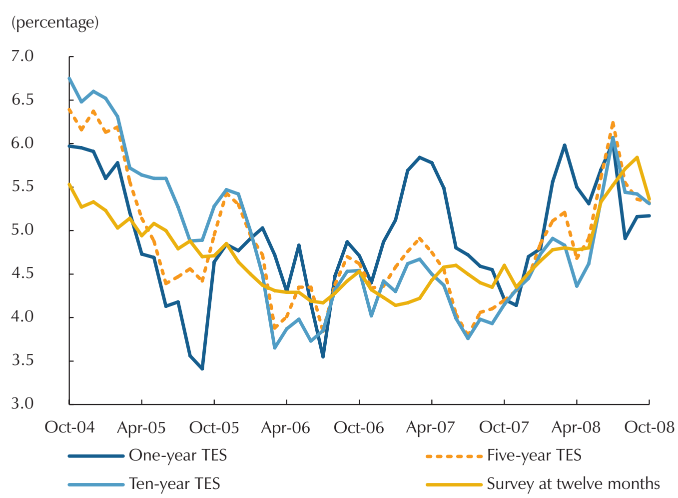

Source: DANE; calculations by Banco de la República (Central Bank of Colombia).

Graph 20
Output gap




Source: Banco de la República (Central Bank of Colombia)

Graph 21
TES-derived expectations of inflation (fixed rate versus UVR)



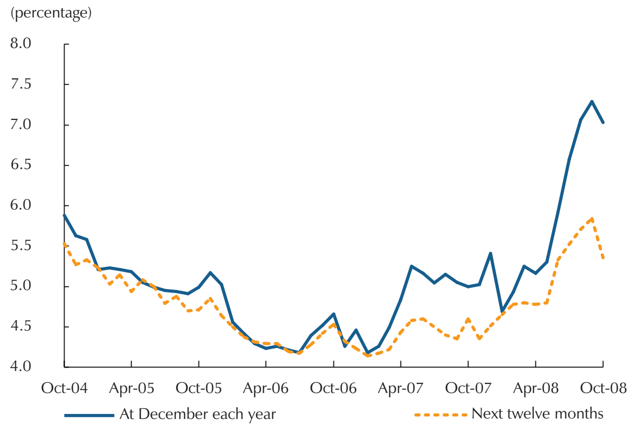

Source: Banco de la República (Central Bank of Colombia).

decline, which may be associated with the Board's decision to raise the policy rate by 25 bp on July 25. As a result, expectations derived from interest rates on TES (fixed rate versus UVR) declined sharply at the end of July and the beginning of August. These low levels continued for the remainder of the quarter. At the start of October, they were between 5.2% and 5.4% for the different maturities (Graph 21).

Expectations for inflation at the end of the year, based on the Central Bank's monthly survey conducted at the start of October, reached 7.0%, which is higher than three months ago, but slightly below the figure reported in September. The tendency in expected inflation for the next twelve months was similar, with an increase between July and September; however, it declined at the beginning of October (to 5.4%) (Graph 22). Inflation is expected to be 5.4% by December 2009.

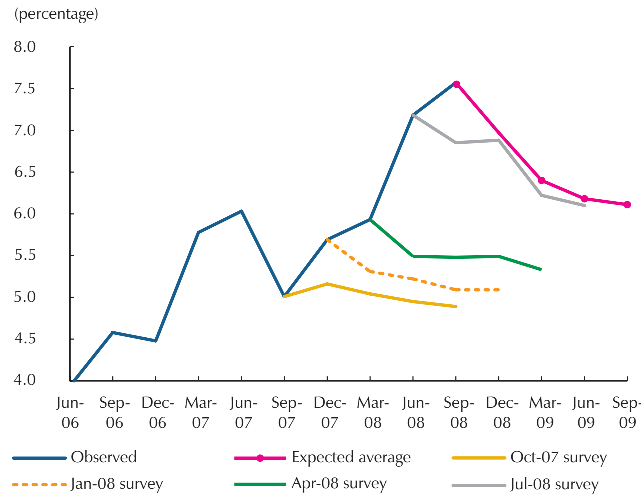
Finally, the Central Bank's quarterly survey in early October shows an increase in inflation expectations for different horizons. Agents expect inflation to be 7% by December 2008 as opposed to 6.9% expected last quarter. The inflation expectation for September 2009 is 6.1% (Graph 23).

Graph 22
Monthly inflation expectation survey of banks and brokerage firms




Source: Banco de la República (Central Bank of Colombia).

Graph 23
Inflation and expectations of inflation (at three, six, nine and twelve months)




Source: Banco de la República (Central Bank of Colombia).

## Box 1
## INTERNATIONAL CRISIS PASS-THROUGH CHANNELS

Carlos Huertas C.*

As a consequence of the financial crisis in the United States, which has spread to the other developed countries and to some emerging markets, it is important to identify the channels through which this shock can impact the Colombian economy. The following section offers a brief technical summary of those channels, some of which are analyzed in detail in other sections.

Theoretically speaking, the origins of the pass-through channels of an international crisis can be classified into two main categories: contagion through fundamental ties and contagion through investor's behavior.1 However, it is important to be clear about the fact that these two large groups, and the pass-through channels found in each of them, can be closely related, and it is difficult to determine precisely which is the most significant.

### 1. Fundamental Causes and Origins

Contagion in this group occurs through the mutual dependence that exists naturally among economies. Accordingly, a local or global shock will be passed on through the commercial and financial ties among countries. There are several categories within this classification.

#### a. Contagion through Global Shocks

These are changes that affect the world economy as a whole, such as reduced growth worldwide, an international financial crisis, plunging commodity prices and changes in the monetary stance of the industrialized countries. Above and beyond the impact of these shocks on economic activity in each country, the effects usually are more intense in emerging market economies and are manifest in the form of capital flight and falling asset prices. Because these shocks are global, the extent of contagion will depend on the state of a country's fundamental variables compared to those of other countries, such as deficit and sustainability of the current account and public and private debt, financial depth, openness of the economy, and international reserves.

#### b. Contagion through Commercial and Competitive Ties

If a country's trading partner experiences a sharp depreciation in its currency, coupled with a drop in the price of its assets and capital flight, this shock can produce exchange attacks on the other economy, since the markets anticipate a reduction in exports from the stable country to the economy in crisis. Another channel is the loss of competitiveness in third markets, due to the sharp depreciation experienced by a competitor as a result of problems caused by financial crisis. This situation brings pressure to bear on the currencies of competitor countries, especially in economies with a free-float regime.

#### c. Contagion through Direct Financial Ties

These ties refer to financial flows through transfers or business activity, such as foreign direct investment (FDI), remitted earnings, international commercial loans, whether for trade (exports and imports) or among bank branches, workers' remittances and interest rates on external financing. For example, a financial crisis in a developed country that is a generator of FDI, or in an economy that is a recipient of that investment, can have a collateral effect on other emerging economies, inasmuch as the amount of the transactions of each of the described variables can decline and generate unexpected devaluations.

### 2. Causes or Origins Linked to the Behavior of Investors

In this category, contagion occurs through common movements for the sale of assets or the cancelation of loans made by investment funds or commercial banks to other economies, which cannot be explained necessarily by changes in macroeconomic fundamentals. This type of contagion also can be attributed to so-called "irrational events" such as financial panic, herd behavior, loss of confidence or added risk aversion, which can lead to speculative attacks on the currencies and assets of the countries that experience a flight of capital. Therefore, if a country is highly integrated into the global financial market, contagion through these phenomena will be more intense. The literature classifies the origin of investor behavior into three categories.

#### a. Liquidity and Incentive Problems:

When an investment fund suffers huge losses because of a crisis in a particular country, it can sell off its assets in

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* The author works with the Programming and Inflation Department at the Central Bank of Colombia. The ideas expressed in this document are de soles responsibility of the autor and do not represent the views of the Banco de la República (Central Bank of Colombia) or its Board of Directors.

1 This classification is base largely on R. Dornbush, Y. Chul Park and S. Claessens (2000), "Contagion: How it Spreads and How it Can Be Stopped," 19 May, The World Bank.

other markets to acquire cash and to anticipate possible withdrawals from the fund, regardless of whether or not some of those economies have good fundamentals. Similarly, a commercial bank with a loan portfolio that is highly exposed to the market in crisis can suspend loans to other markets as a way to reduce the overall risk to its portfolio. Liquidity problems can be aggravated by highly leveraged investors who can incur large losses when asset prices tumble and are forced to sell off all kinds of investments in different markets to comply with the liquidity requirements in each country. As to incentives, the use of value-at-risk models is a clear example. When faced with a shock in an emerging market that has produced losses for an investment fund, the best response for these models can be to balance risk once again and to reduce exposure in other emerging markets. It all depends on the new incentive or the investor's willingness to assume a different level of risk.

**b. Asymmetric Data**

In this category, contagion occurs due to shortcomings in data (incomplete, asymmetric, analysis costs, etc.) or because of sharp differences in the investors' expectations. The following are some examples:

- When faced with a crisis in a particular country, investors may expect the same to happen in another country, if their information points to the presence of similar conditions in the latter.

- Given the high fixed cost of constantly having an adequate economic analysis of each country, less informed investors may prefer to mirror the decisions made by funds they believe are better informed. If the latter move towards a "bad balance," the herd effect could lead the entire market to end up in the same condition.

- A reputation effect may prompt fund managers to refrain from going against the majority in the market. In which case, they may prefer to follow the herd.

**c. Changes in the Rules of the Game**

Changes in a country's rules and regulations on international investment (declaration of non-payment, restrictions on capital, nationalization of private companies, etc.) can affect another country, since the markets may expect the latter to do the same. This can result in exchange rate attacks, falling asset prices and financing problems.

# II. Financial Markets

**Several events in the last two months** exacerbated the financial crisis in the industrialized economies. Specifically, the plunge in confidence was accompanied by a shortage of liquidity and capital.

**The governments of the developed countries** approved recovery plans intended to recapitalize the major financial institutions and to provide liquidity through public funds. By mid-October, the credit channels have no stabilized yet.

**The crisis began to hit the emerging market economies.** Their risk premiums have reached levels similar to those in other periods of extreme uncertainty. The Colombian banking system's exposure to the crisis is low.

**Colombia registered a slight rise** in nominal interest rates. However, their real levels did not increase and remained near the historic averages.

**Lending in pesos continued to slow.**

## A. THE EXTERNAL CONTEXT

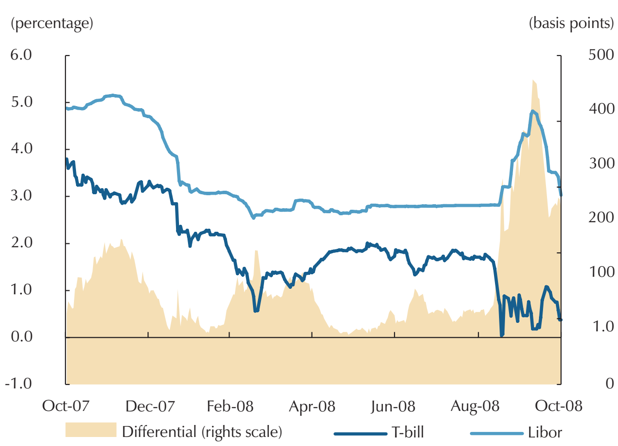
The recent situation on international financial markets has been the main topic of interest for the global economy. After nearly a year of uncertainty caused by the sub-prime mortgage crisis in the United States, the loss of confidence among financial institutions was exacerbated by a series of events in September 2008. The situation was one of liquidity shortfalls and an extreme need for capital on the part of financial institutions in the United States, as well as in Europe and Asia, fostering what could be the worst financial crisis since the Great Depression of 1929.

What unleashed the financial stress in the last month and a half was the failure of Lehman Brothers on September 15. This forced other investment banks such as Goldman Sachs and Morgan Stanley to convert to "bank holding companies" the following week and brought an end to the era of independent investment banks on Wall Street.[4] The uncertainty further increased when the world insurance giant American International Group (AIG) needed help from the United States government to cover its short-term obligations.

This entire spectrum of financial panic, which spread to the European and Asian economies, obliged the governments of the developed countries to act imperiously in the market, through the use of various liquidity tools at the disposal of central banks, credit, the purchase of illiquid assets and even the acquisition of stock in private or semi-public companies to contain what has become a global credit crunch.

In the United States, the government's strategy centered on a US$700 billion rescue plan that included the purchase of assets affected by the financial crisis. Congress's initial rejection of the plan made the markets even more volatile. The plan ultimately agreed on by the country's economic authorities involved measures to include government purchase of nearly US$250 billion (b) in preferred shares of the nine largest banks in the United States.[5] These decisions were accompanied by a combined reduction in the benchmark rates of the central banks of the major economies in October, a move that was duplicated by the monetary authorities in Australia, South Korea, Taiwan and Hong Kong.[6]

Graph 24
Three-month T-bill and libor differential in the United States




Source: U.S. Federal Reserve and Bloomberg.

By the third week of October, the rescue plan was only partly successful, having failed to reopen credit channels or to lower the cost of borrowing. Interest rates and risk premiums began to decline, but were still well above the levels considered acceptable (Graph 24). This period also witnessed an unprecedented increase in the volatility on capital markets, as

4 The forced sale of Merrill Lynch to Bank of America in mid-September was yet another step in the transformation of investment banks into bank holding companies.

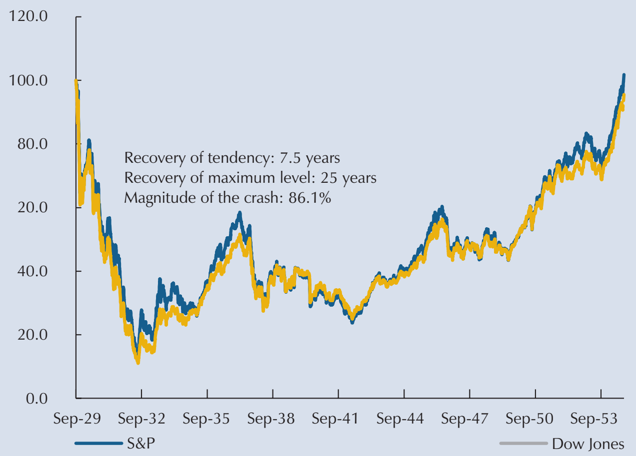
5 Authorities in the Euro Zone and the United Kingdom adopted rescue plans as well, which included liquidity assistance and capitalization of troubled financial institutions. In October, the German government announced the approval of a nearly 500 billion euro rescue plan similar to the one adopted in the United States.

6 According to estimates published by the Central Bank of England in its latest financial stability report, the losses suffered by financial institutions in the United States, the euro zone and England came nearly to US$2.8 t. Furthermore, the amount injected by the authorities the world over to rescue those institutions comes to almost US$7.7 t.

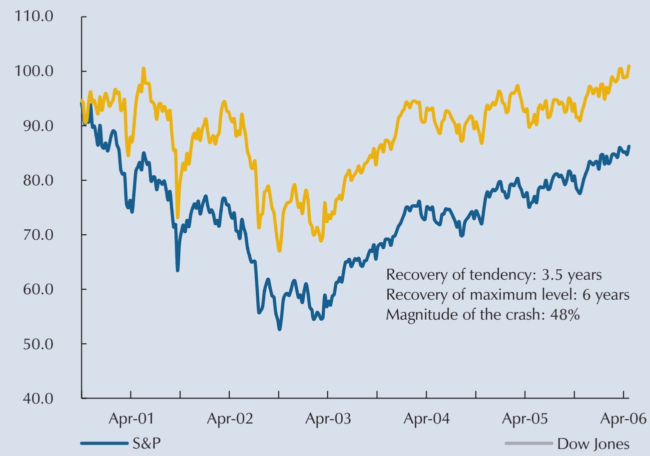
A look at the history of economic growth and the stock market indexes in the United States (Dow Jones and S&P500) shows three episodes of recession with characteristics similar to those of the current situation: a stock market crisis accompanied by a recession. The largest drop in the stock market occurred during the crisis in 1929 (86%), and the market took almost 7.5 years to recover; that is, to return to its long-term tendency. Furthermore, it took 25 years to return to the maximum level observed prior to the crash. In the other episodes, the magnitude of both the crash and the time it took stocks to recover was less (approximately 50% and three years). At the time this report was written, the stock market indexes were down by roughly 40% from the maximum value achieved in October 2007.

Graph 1
Stock market indexes in the United States

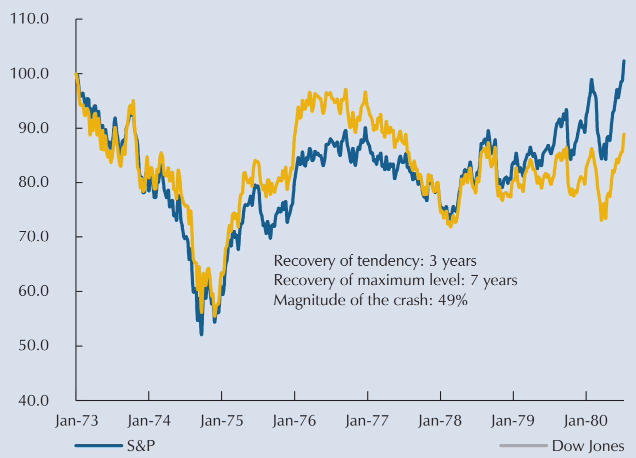
A. The 1929 crisis



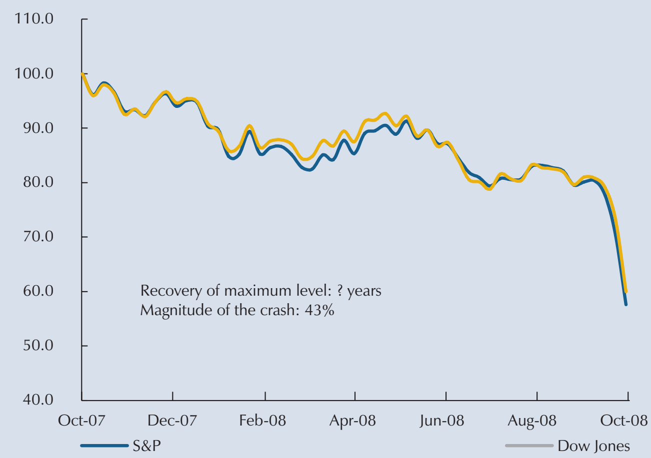

B. 1973 Oil crisis



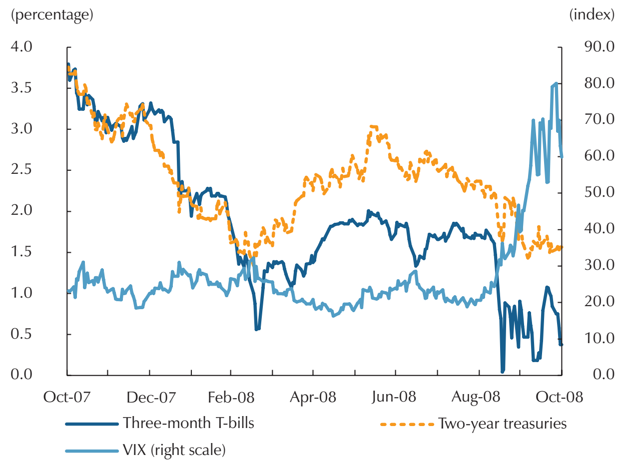

C. 2001 crisis




D. Subprime crisis

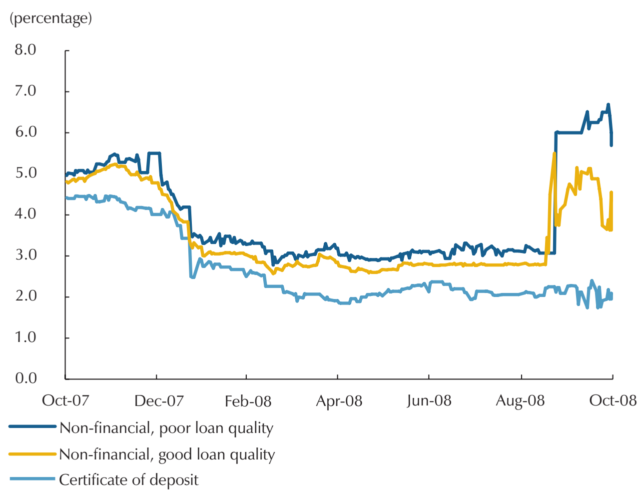


Graph 25
Volatility index (VIX) and short-term treasuries in the United States




Source: Bloomberg.

Graph 26
Rate on commercial paper and three-month certificates of deposit in the United States




Source: United States Federal Reserve Bank and Bloomberg.

demonstrated by the VIX.[77] All of this led investors to sell off risky positions (stock indexes the world over have posted significant losses) and to mount a massive search for safe assets (Graph 25).

It is important to remember that the United States Federal Reserve Bank (the Fed) has little room for reducing its benchmark rates[88] as a way to deal with the situation, something that is less critical in the European case. Moreover, the short-term rates on U.S. Treasury bonds dropped to nearly zero in recent quarters, due to a much higher perception of risk and a marked preference for liquidity. This appears to have begun to mold a situation similar to a "liquidity trap" where the usual monetary policy does little to stimulate demand.

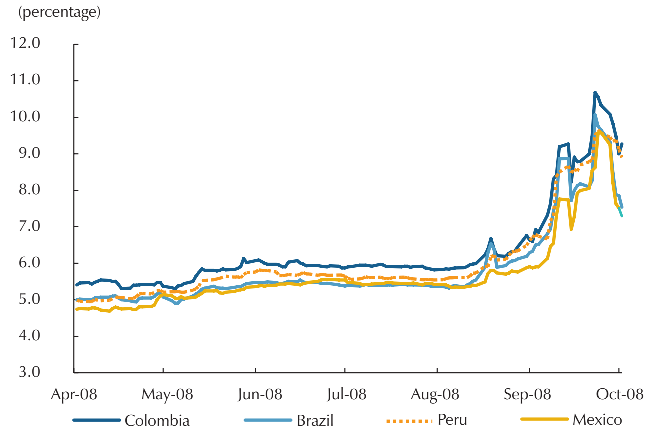
Despite the Fed's low benchmark rate and the U.S. government rates, this report does not rule out an increase in interest rates on loans. This already is beginning to happen with low-rated commercial paper and certificates of deposit in the United States (Graph 26). The consideration in this report is that effective lending rates in the United States and Europe will remain high for several quarters, bringing pressure to bear on the relevant interest rates for emerging countries. The increase in rates on sovereign bonds denominated in dollars for most of the emerging countries during October is an indication in this respect (Graph 27).

As to the stock markets in the emerging countries, there were sharp drop last quarter, particularly in the Eastern European countries, although Latin America and, to a lesser extent, the emerging Asian countries have experienced this phenomenon as well. In Latin America, Colombia was one of the countries where the stock market declined the least compared to the sharp reductions

7 The Chicago Board Options Exchange (COBE) Volatility Index, which shows the market's expectation of 30-day volatility.

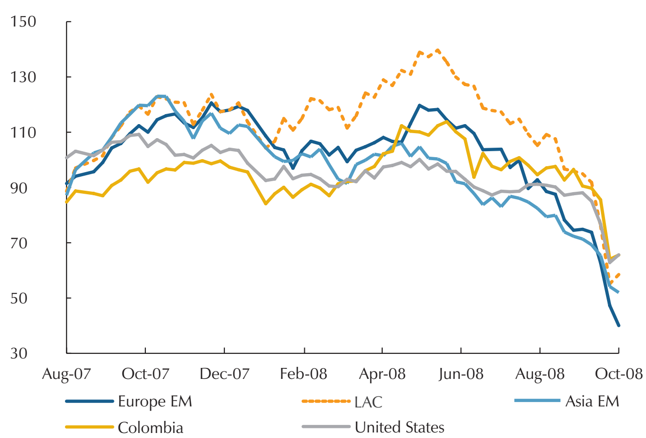
8 The Fed lowered its benchmark rate to 1% at this report was being written. The interest rate futures market, in turn, discounted an additional 50 bp rate cut at the end of the year, with 96% probability.

Graph 27
Interest rate on six-year sovereign bonds in dollars



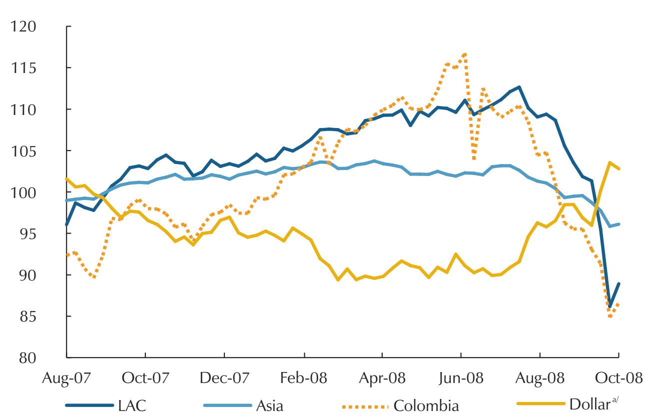

Source: Bloomberg.

Graph 28
MSCI Stock Index, since August 2007[a/]




a/ MSCI: Morgan Stanley Capital International. The index corresponds to data expressed in U.S. dollars.
Source: Bloomberg.

Graph 29
Index of emerging currencies against the dollar, since August 207




a/ The dollar index compared to a basket of strong currencies
Source: Bloomberg.

in Brazil and Peru[9] (Graph 28). In terms of how the currencies of emerging countries held up against the dollar, there was a great deal of depreciation in Latin America; in fact, the worst performing currencies during the last quarter were those of Brazil, Chile and Colombia (Graph 29). In the Colombian case, annual nominal depreciation between the average at December 2007 and the average at October of this year came to 14%.

As mentioned in earlier editions of this report, sovereign credit default swaps (CDS)[10] are one way to analyze the risk premium on emerging market assets. In the Latin American case, these credit derivatives suggest an increase in risk of default on the credit liabilities of Latin American countries. Their levels, in contrast to past reports, are similar to those observed during episodes in 2002-2204 marked by considerable uncertainty over the payment capacity of emerging countries (Graph 30). Nevertheless, there were major reductions in those premiums at the time this report was written.

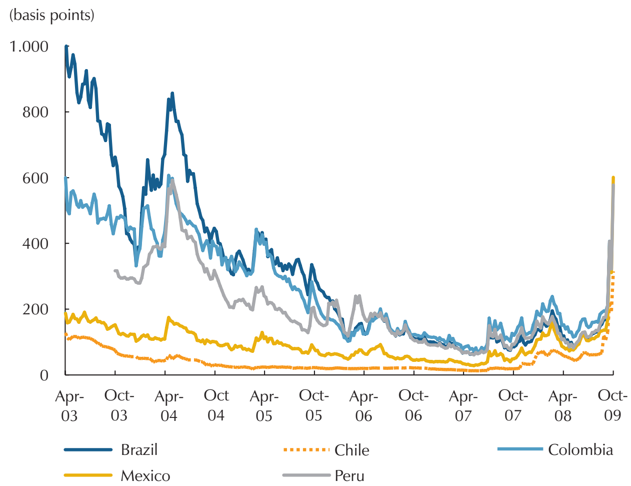
Finally, an important factor in the explanation for the current crisis concerns the world macroeconomic imbalances that have accumulated over the last ten years and have place the U.S. economy in a deficit position, with an extremely low rate of personal savings as opposed to a surplus situation for the emerging economies as a whole, particularly China (Graph 31). It is still highly uncertain how these imbalances could be adjusted, but how this is done will depend on the performance of capital flows, trade and exchange rates in the next few years.

For instance, one could speculate that, despite the massive liquidity reduction facing international financial institutions, the currencies of the emerging countries would not suffer the devaluations

9 Even though these countries reported important stock market gains in previous quarters.

10 A mechanism whereby the buyer is guaranteed a payoff by the seller in the event of default (breach).

Graph 30
Five-year credit default swaps (CDS) in Latin America




Source: Bloomberg.

Graph 31
Personal savings rate in the United States


Source: Datastream.

experienced when capital markets dried up in the past, given the absence of investment alternatives. This would occur to the extent that the risk premiums of the traditional shelters for investors increase and the debt paper of those investors devaluates more than usual. The latter would depend on whether or not the guarantees offered by the U.S. and European governments to their financial systems actually take shape.

The assumption in this report is that the consequences of the crisis for Colombia and other emerging market economies, coupled with less demand for their exports and lower terms of trade, would reinforce an important decline in capital flows.

## B. FINANCIAL MARKETS

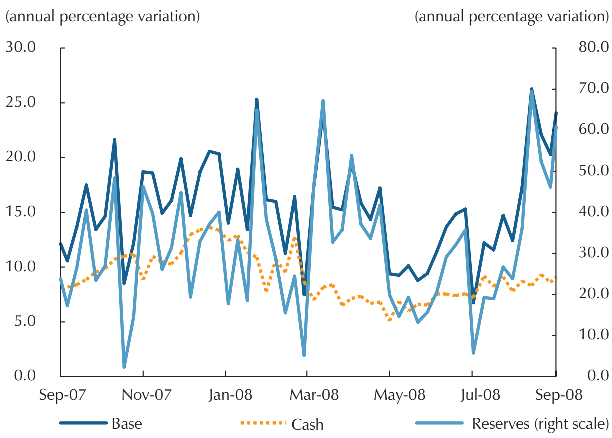
Monetary aggregates were affected during the third quarter of 2008 by TES that matured in August and by the change in the bank reserve requirement. This last measure, which took effect in September, sparked a significant increase in the demand for bank reserves and partly explains the strategy of financial institutions to concentrate on interest-bearing non-reserve deposits, such as time certificates of deposit over 18 months (CDT: Spanish acronym). The foregoing, together with the June hike in the Central Bank's interest rate, was reflected in an increase in the CDT deposit rate.

The upward tendency in lending rates on preferential and mortgage loans may be associated with higher funding costs. Moreover, the increase in inflation, which affected the real value unit (UVR: Spanish acronym), also may be exerting upward pressure on the interest rate for home loans in pesos. The other lending rates continued to fluctuate at levels similar to those reported so far this year.

With respect to growth in domestic currency loans, September also was a month of moderation, led by the consumer loan portfolio and, to a lesser extent, by the commercial loan portfolio. In August, loans in foreign currency and direct foreign financing showed annual growth rates below those observed during the same month in 2007, with less momentum than the increase in domestic currency lending.

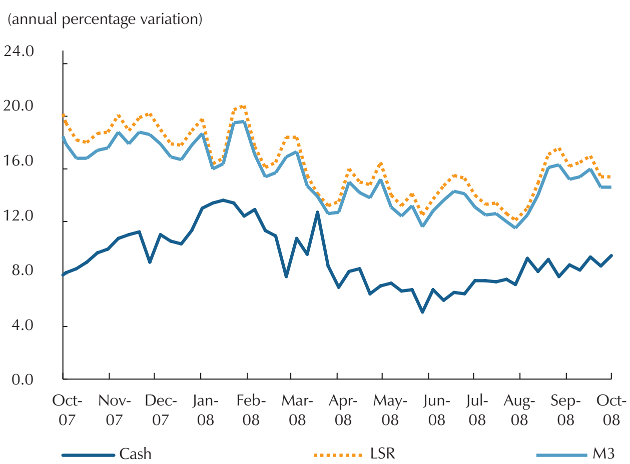
As for the securities market, the international financial crisis infected the local market, where sharp devaluations were reported in stocks and government debt paper.

Graph 32
Base money, by use




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

Graph 33
Monetary aggregates and deposits




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

## 1. Monetary Aggregates

Due to the worsening international situation, the Board of Directors of the Central Bank of Colombia (BDBR) decided, at a meeting on 20 June of this year, to step up the accumulation of international reserves.[11] To neutralize the effect of those dollar purchases on monetary expansion, the Board replaced the marginal exchange requirement with an ordinary 10% requirement, scheduled to take effect in September. This last decision raised the ordinary reserve requirement and increased the demand for bank reserves and base money.[12]

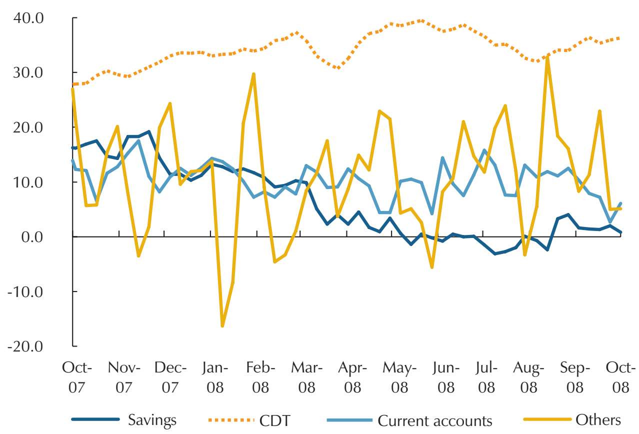
Consequently, in the final weeks of September, the new reserve requirements bolstered the annual rate of growth in bank reserves to around 70%, accelerating the annual increase in base money to 25%. The demand for cash was 9.5%, which is consistent with the nominal growth in economic activity (Graph 32).

Government debt payments influenced evolution of the broader aggregate (M3) during the quarter. In effect, the TES that matured in August (nearly COP$5 t) were honored with funds the government had on deposit with the Central Bank. This created an increase in bank deposits. Later, in September, the M3 growth rate slowed again. Consequently, the largest annual increase in M3 was in August: 16.3%. By the end of September, it was down to 14.6%. Liabilities subject to reserve requirements (LSR) exhibited similar performance on the same dates. Their highest rate was 17.6%, declining later to 15.4%. Liabilities subject to reserve requirements (LSR) account for 88% of M3 (Graph 33).

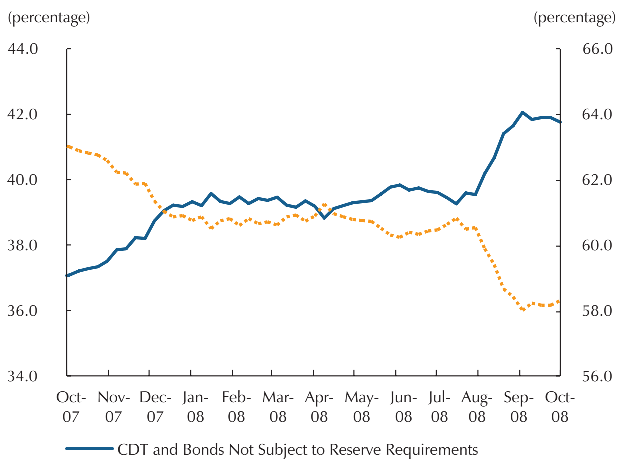
11 The system used to accumulate reserves through monthly options of US$150 m was replaced with daily competitive auctions of US$20 m.

12 The reserve requirement on sight deposits was raised from 8.3% to 11.5% and the requirement on term deposits went from 2.5% to 6.0%. See the *Inflation Report,* June 2007, p. 40.

Graph 34
A. Total deposits and main components thereof

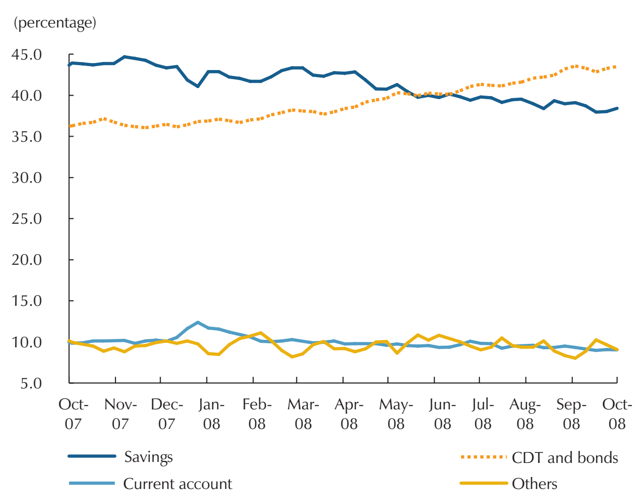



B. CDT and bonds with and without reserve requirements, share




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

Graph 35
Composition of Liabilities Subject to Reserve Requirements (LSR)




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia)

In terms of the deposit market, financial institutions adopted a strategy design to encourage CDT's and long-term bonds. The changes in reserve requirements, the increased availability of resources and expectations of high inflation explain part of this strategy, which was focused essentially on attracting deposits in the form of instruments not subject to reserve requirements, such as time certificates of deposit (CDT) above 180 days. In fact, by the end of the quarter, the annual increase in CDT's and bonds was above 36%, and on the balance sheet, non-reserve instruments accounted for 39% in June and almost 42% in September (Graph 34).

Savings remained at a standstill, exhibiting levels similar to those registered in the third quarter of 2007 and presenting positive annual growth rates only during a few weeks in August. As a result, their share of total deposits fell from 43.9% to 38.4% during the past year, while the share of CDT's went from 36.3% to 43.5% during the same period (Graph 35).

On 9 October, the Central Bank suspended its daily direct purchases of US$20 million (m), underway since July, and reduced the deposit for external borrowing[13] to zero. It also reactivated call options for the exchange rate. Later, on 24 October, the BDBR unanimously adopted the following measures to facilitate the operation of money and credit markets at the end of the year.

- Effective as of 19 November, the bank reserve requirement was reduced from 11.5% to 11 % for current and savings accounts and from 6% to 4.5% for time deposits of less than 18 months. The idea was to free up nearly one trillion pesos by December.

- The Board agreed on the definitive purchase of an initial COP$500 billion in TES. The amount will increase pursuant to the peso

13 On October 8, the government also applied this measure to external capital portfolio transactions (Decree 3913 of October 8, 2008).

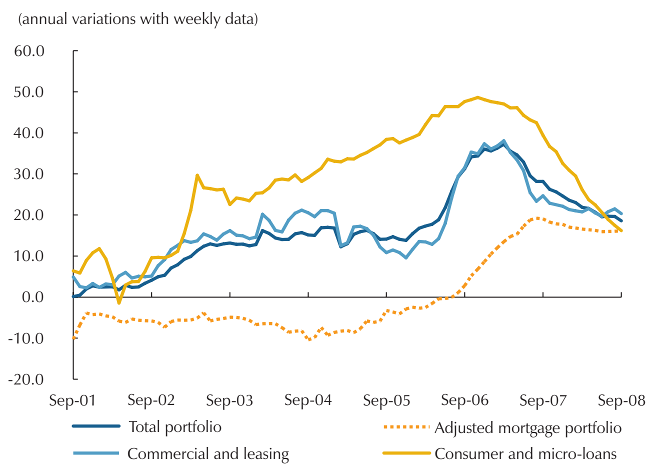
equivalent of the contraction occasioned by the sale of foreign currency through the call option system.

- Auctions will be held to grant temporary liquidity through 14 and 30-day repos.

- The reserve calculation for the end of the year was expanded to three weeks in an effort to reduce pressure on the money market due to the seasonal demand for liquid assets at that time.

- Reserve-repo auctions of inter-bearing non-reserve deposits were closed temporarily as of the Monday following the announcement The Lombard contraction window was left open.

Graph 36
Gross loan portfolio with leasing, in domestic currency




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

## 2. Lending

Loan portfolio growth continued to decelerate during the third quarter of 2008, but at a slower pace. The increase in the total gross portfolio in domestic currency, including leasing, was 18.2% by the first week of October, having been around 19% in June (Graph 36).

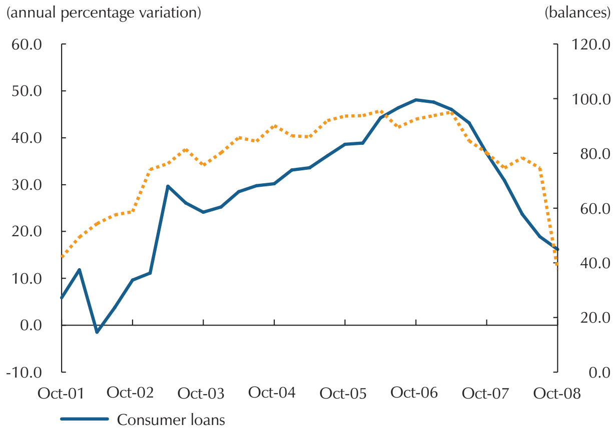
As to the different types of loans, the rate of growth in consumer lending declined by 397 bp during the quarter (from 19.4% to 15.5%), continuing the tendency initiated 20 months earlier. This is coherent with the rise in interest rates, the slowdown in internal demand and the high levels of debt incurred by consumers with loans of this type.

*The slowdown in lending in Colombia continued.*

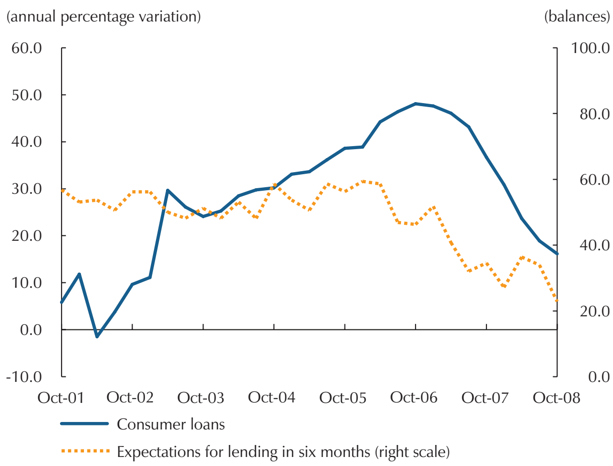
The tendency in the commercial loan portfolio (with leasing) is less clear, having gone from 18.4% growth in June to 19.6% at the end of September (Graph 36). The annual increase in micro-credit was around 26.5% by the close of September. This is high and is explained by the provisions adopted by the national government,[14] which raised the ceiling for access to these lines of credit from 25 to 120 times the minimum monthly wage. Micro-businesses are those with no more than ten employees and assets equivalent to less than 500 times the minimum monthly wage. On the other hand, the annual increase in the mortgage loan portfolio, adjusted with securitization, has been at around 16% since last June.

14 Finance Ministry, Decree 919 of 2008.

Graph 37
A. Consumer loan portfolio and actual perception of lending

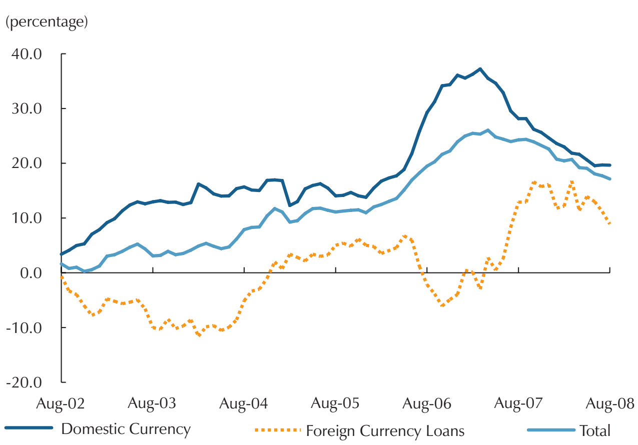



B. Consumer loan portfolio and perception of lending for the next six months




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

Graph 38
Financial system lending and external borrowing by the private sector




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

In terms of expectations, the Central Bank's quarterly survey shows agents continue to perceive credit as being less available, pursuant to the performance of the consumer loan portfolio (Graph 37, panel A). Moreover, those surveyed expect to see the credit market tighten in the next six months (Graph 37 panel B).

External borrowing, which includes foreign currency loans from local banks and external direct financing for the private sector,[15] came to US$17,296 m in August, with an annual increase of 9%. When the two types of lending are combined; that is, loans in domestic currency and those extended in foreign currency, the increase by August was 17% (Graph 38). For the rest of the year, if the restrictions on external lending become more pronounced and expectations of peso devaluation increase, there could be somewhat of a shift from commercial loans in dollars to borrowing in pesos.

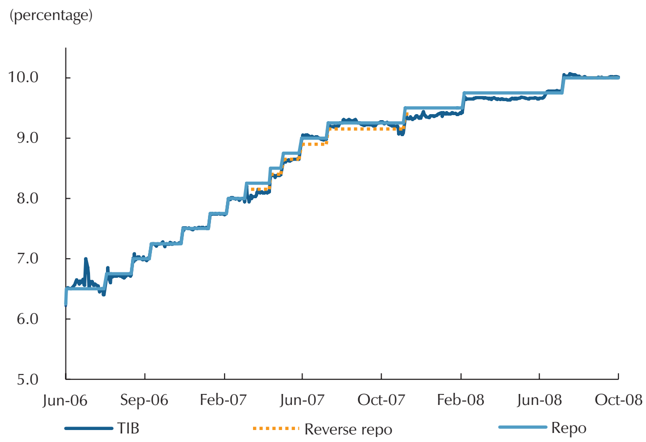
## 3. Interest Rates and Asset Prices

Higher inflation, the increased prospects for inflation next year, and the importance of anchoring expectations to a downward path for inflation were the main reasons why the Board of Directors raised the benchmark interest rate from 9,75% a 10% at its meeting on 22 July. There was no change ruled on policy rates at the BDBR meetings in August, September and October. On average, these decisions were consistent with what the market expected, according to surveys of experts in the financial sector.

As usual, the inter-bank interest rate (TIB) was pegged to movements in the policy rate (Graph 39). As to the evolution of nominal rates on deposits and lending, the former increased, while the tendency in interest on lending was mixed.

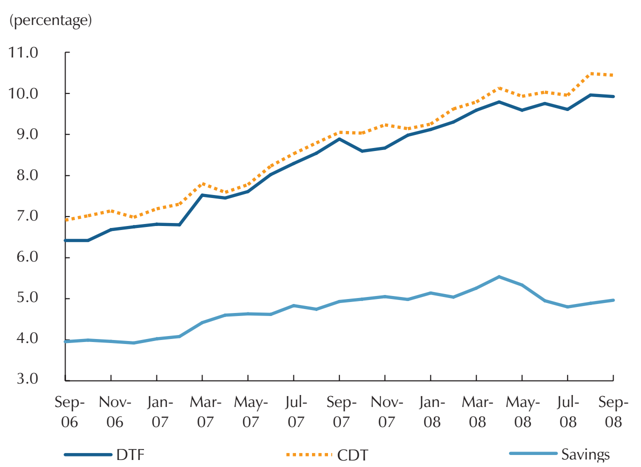
15 Through bank loans, commercial lending, leasing and bonds sold internationally.

Graph 39
Central Bank repo auction rate and inter-bank interest rate (TIB), 2006-2008




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

Graph 40
CDT, DTF and savings rates




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

The average interest rate on CDT deposits was up by 41 bp during the third quarter of 2008, reaching 10.4% by September. This increase is explained by the policy rate hike and the strategy to attract deposits above 18 months. The move towards longer term deposits also contributed to less of a change in the DTF (90 day) indicator, which reached 9.92% owing to a 17 bp increase during the quarter. Another effect was that interest rates on savings stabilized at around 5% during that period (Graph 40 and Table 8).

The weighted average interest rate on lending rose 26 bp during the quarter, as calculated according to the method used by the Central Bank. The increase was in rates on mortgage loans (79 bp), preferential loans (40 bp) and ordinary lending (9 bp). By September, they were up to 17.16%, 14.95% and 17.60%, respectively (Table 8 and Graph 41). In terms of interest on home loans, part of the rate increase in the mortgage sector feasibly could be explained by the rise in UVR for reasons of inflation and its equivalence to the rates extended in pesos.

On the other hand, credit card, consumer lending and treasury rates declined by 41 bp, 12 bp and 6 bp, in that order, reaching 31.45%, 25.81% and 13.49% by September. As was explained in earlier reports, interest on credit card lending is determined primarily by the usury rate. Accordingly, the credit card rate may continue to decline to the same extent as the usury rate[16] (Graph 42).

Table 8
Average monthly interest rates

| | Nominal rates | | | | | | Real rates (Non-food CPI) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Variation | | | | | | Variation | |
| | Apr-06 | Dec-07 | Jun-08 | Sep-08 | Qtr. | Apr-06 to Aug-08 | Apr-06 | Dec-07 | Jun-08 | Sep-08 | Qtr. | Apr-06 to Aug-08 |
| **Deposit rates** | | | | | | | | | | | | |
| Ordinary savings | 3.6 | 5.0 | 5.0 | 5.0 | 0.0 | 1.4 | 0.1 | 0.5 | 0.1 | (0.2) | (0.2) | (0.3) |
| CDT | 6.2 | 9.1 | 10.0 | 10.4 | 0.4 | 4.3 | 2.5 | 4.5 | 4.9 | 5.0 | 0.1 | 2.5 |
| DTF | 5.9 | 9.0 | 9.7 | 9.9 | 0.2 | 4.0 | 2.3 | 4.4 | 4.6 | 4.5 | (0.1) | 2.2 |

16 The reduction was 74 bp and will remain in effect up until the final quarter of the year.

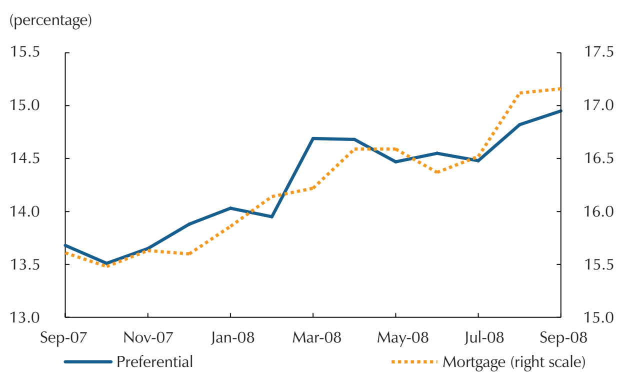
Table 8 (continue)
Average monthly interest rates

| | Nominal rates | | | | | | Real rates (Non-food CPI) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Variation | | | | | | Variation | |
| | Apr-06 | Dec-07 | Jun-08 | Sep-08 | Qtr. | Apr-06 to Aug-08 | Apr-06 | Dec-07 | Jun-08 | Sep-08 | Qtr. | Apr-06 to Aug-08 |
| **Lending rates** | | | | | | | | | | | | |
| Lending rate Banco de la República | 12.9 | 16.6 | 17.1 | 17.4 | 0.3 | 4.4 | 9.1 | 11.7 | 11.6 | 11.6 | (0.0) | 2.5 |
| Consumer | 21.1 | 25.2 | 25.9 | 25.8 | (0.1) | 4.7 | 17.0 | 19.9 | 20.0 | 19.6 | (0.4) | 2.6 |
| Ordinary | 15.4 | 17.1 | 17.5 | 17.6 | 0.1 | 2.2 | 11.4 | 12.1 | 12.0 | 11.8 | (0.2) | 0.4 |
| Mortgage | 13.9 | 15.6 | 16.4 | 17.2 | 0.8 | 3.3 | 10.0 | 10.7 | 10.9 | 11.4 | 0.5 | 1.4 |
| Preferential | 8.7 | 13.9 | 14.5 | 14.9 | 0.4 | 6.2 | 5.0 | 9.0 | 9.2 | 9.3 | 0.1 | 4.3 |
| Overdraft | 23.8 | 30.0 | 0.0 | 0.0 | 0.0 | (23.8) | 19.6 | 24.5 | 24.2 | 23.8 | (0.4) | 4.2 |
| Credit Card | 24.0 | 30.2 | 31.9 | 31.5 | (0.4) | 7.4 | 19.8 | 24.7 | 25.7 | 25.0 | (0.7) | 5.2 |
| Treasury | 7.7 | 12.6 | 13.5 | 13.5 | (0.1) | 5.8 | 4.0 | 7.8 | 8.2 | 7.9 | (0.3) | 3.9 |
| **TIB** | 5.9 | 9.3 | 9.7 | 10.0 | 0.3 | 4.1 | 2.3 | 4.7 | 4.5 | 4.6 | 0.1 | 2.3 |
| **Repo auction** | 6.0 | 9.5 | 9.8 | 10.0 | 0.3 | 4.0 | 2.4 | 4.9 | 4.6 | 4.6 | (0.0) | 2.2 |
| **Usury rate** | 25.1 | 31.9 | 32.9 | 32.3 | (0.6) | 7.1 | 20.9 | 26.3 | 26.7 | 25.8 | (0.9) | 4.9 |

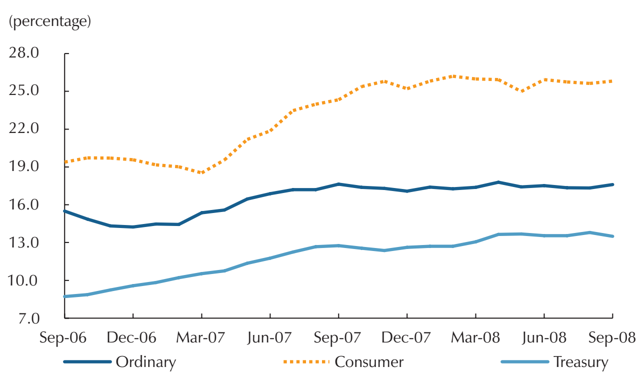
Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

Graph 41
Interest rate by loan portfolio type

A. Mortgage and preferential



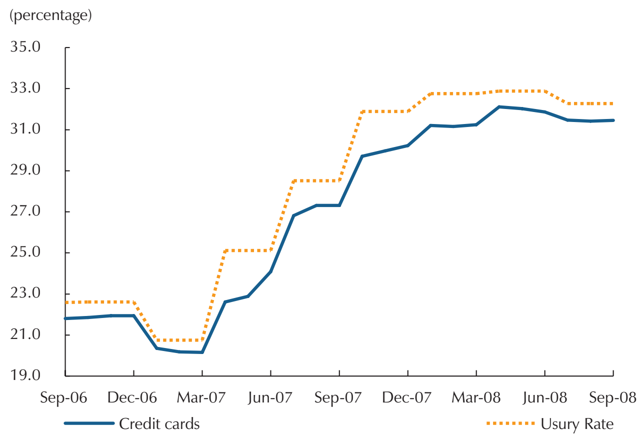

B. Ordinary, consumer and treasury




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

The stock market in Colombia, as in most countries, was affected by the financial crisis and devaluated sharply. By 18 October, the Colombian Stock Market Index (IGBC: Spanish acronym) descend to 7,596, plunging 1,960 points (20%) compared to its value on 12 September, which was the working day before Lehman Brothers failed. At around the same time, TES began to trade at higher rates, particularly the long-term bonds. For instance, those maturing in July 2020 increased 124 bp and traded at 12.79% on October 18 (Graph 43).

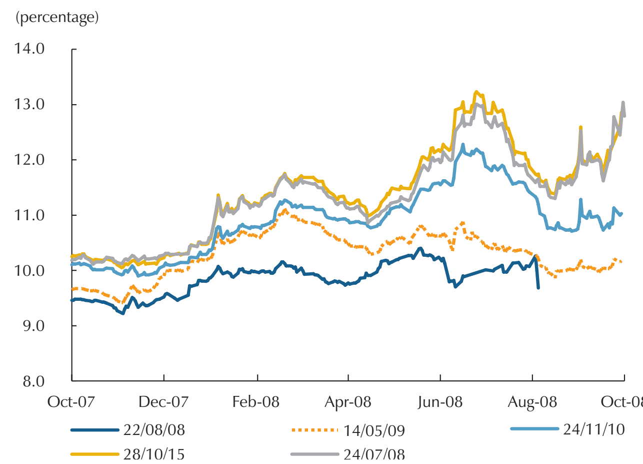
Graph 42
Interest on the consumer loan portfolio for households




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

Graph 43
A. Colombian stock market index


B. Nominal interest on TES, secondary market




Source: Office of the Financial Superintendent; calculations by Banco de la República (Central Bank of Colombia).

*The Colombian stock market was affected by the international crisis.*

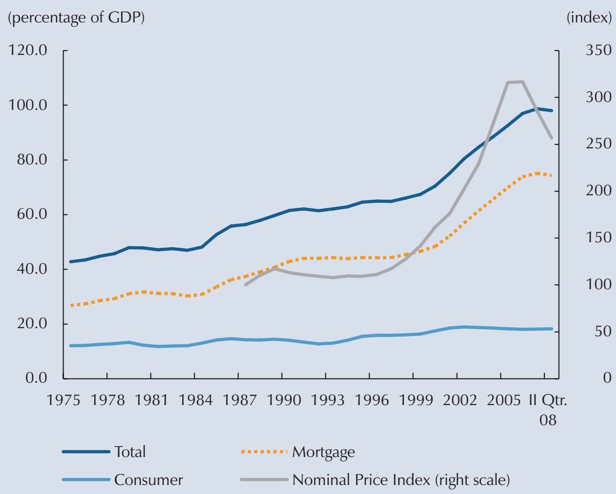
# Box 2
# THE INTERNATIONAL FINANCIAL CRISIS AND THE COLOMBIAN FINANCIAL SYSTEM

Carlos Huertas
Luis H. Calderón*

If the international market perceives conditions in Colombia to be such that a financial crisis similar to the one in the United States might occur, this could be a channel for contagion that would cause capital flight, with an impact on the exchange rate, inflation and growth (Box 2). The authors claim there is little probability of that happening, because the financial system so far has only limited exposure to "toxic assets," contrary to the situation of banks in the United States and in other developed economies.

Lending in the United States began to soar at the start of the current decade, generating a boom in the housing market and a subsequent rise in home prices (Graph B2.1). This provided an incentive to the mortgage loan securitization business, developed through sophisticated financial instruments that were sold the world over. Accordingly, the subsequent drop in housing prices in the world's largest economy caused a number of investment and commercial banks to fail, specifically those with balance sheets heavily exposed to mortgage backed securities.

Graph B2.1
United States: Household debt and used home prices

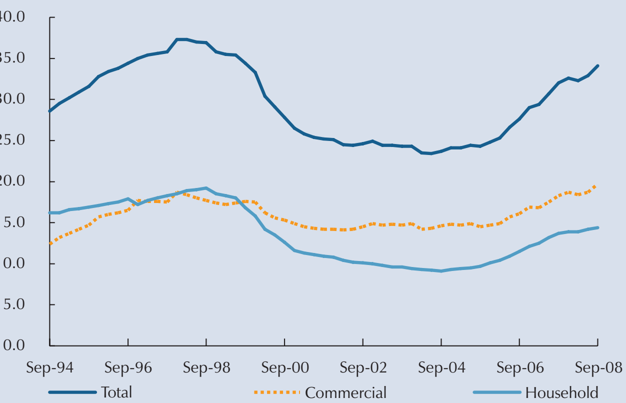



Source: Fed and S&P/Case-Schiller

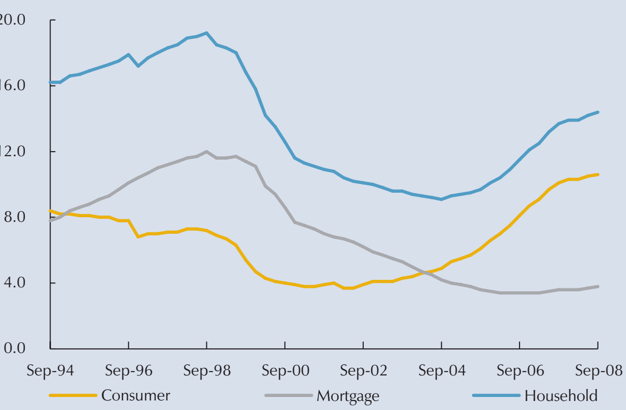
In the Colombian case, the increase in loan supply as of late 2005 was concentrated in consumer and commercial lending. Growth in the mortgage loan portfolio was quite limited and its current level (COP$14.4 t), as a share of GDP, can be regarded as historically low (Graph B2. 2, Panels A and B). Moreover, growth in the commercial and consumer loan portfolios has slowed since mid-2007. This is particularly true in the case of consumer lending, which began to lose momentum in November 2006 and is now expanding at an annual rate of 15%.

Graph B2.2
Colombia: Loan Portfolio as a Share of GDP

A. Total, commercial and households




B. Consumer, mortgage and household




Source: Office of the Financial Superintendent

Although real housing prices in Colombia have recovered considerably in the last three years, real annual average growth in the used home price index (UHPI) between 1989 and June 2008 was 1.1%, which is similar to the figures reported by other economies during what are considered

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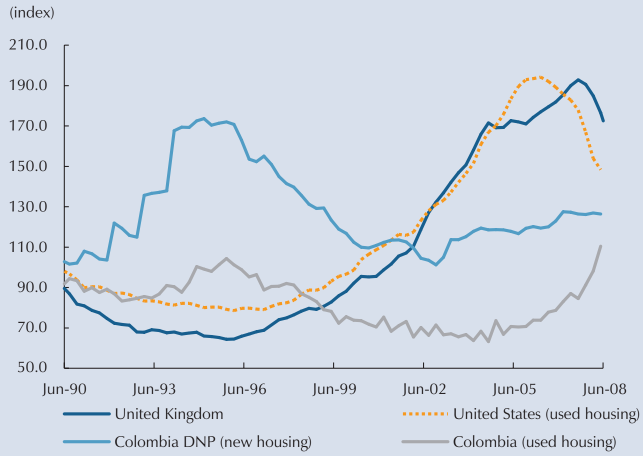
Graph B2.3
Housing price index relative to the CPI




Source: Case-Schiller, DNP, Banco de la República (Central Bank of Colombia) and the Bank of England

normal times. For example, the real average increase in housing prices in the United States between 1988 and 2000 was 0.5%. In England, between 1976 and 2000, it was 1.7%. If we include the boom period in both these countries between 2000 and 2007, their averages increase to 2.3% and 3.3%, respectively (Graph R2.3).

As for balance-sheet information on the Colombian financial system and its exposure to so-called "toxic securities" issued in the United States, the figures at August show low risk. In fact, only 6% of the assets in the financial system[1] were in foreign currency (Table B3.1). Credit institutions, which constitute the largest group in this sector, reported only 1.5% (COP$2.5 t) of their assets in currencies other than Colombian pesos, and a portion of those assets have low counterpart risk (e.g. cash or government-issued securities). The situation is similar with mandatory pension funds, which rank next in size with respect to the level of assets (Table B2.2).

Another important feature of the financial crisis in the United States is the considerable increase in the perception of counterpart risk, as echoed by the rise in the inter-bank interest rate (TIB: Spanish acronym). This has not occurred in Colombia, where the inter-bank rate has

Table B2.1
Financial system portfolio of external assets, by instrument

| Type of investment | Credit institutions | Fogafin | Mandatory pension funds | Voluntary pension funds | Severance funds | Insurance companies |
|---|---|---|---|---|---|---|
| Cash | 3.6 | | | | | |
| Assets in domestic currency (World Bank) | 2.9 | | | | | |
| Deposits outside the country | 1.3 | | | | | |
| Correspondents | 36.2 | | | | | |
| Inter-bank funds | 38.1 | | | | | |
| Stocks with low trading volume | 12.1 | | | | | |
| Securities investments | 5.9 | | | | | |
| Securities backed or guaranteed by external banks | | 39.2 | | | | 35.7 |
| Securities issued by residents abroad | | | | | | 14.3 |
| Sovereign risk | | 60.8 | 12.5 | 6.1 | 13.8 | 43.0 |
| Fixed income and money market | | | 24.1 | 20.6 | 25.3 | |
| Investment funds | | | 55.2 | 73.2 | 50.5 | 5.3 |
| Stock funds and stocks | | | 7.2 | 0.1 | 10.5 | 1.7 |
| Lehman brothers | | | 1.1 | | | |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

Sources: DANE and World Bank

1 Includes lenders, pension funds, insurance companies and Fogafin.

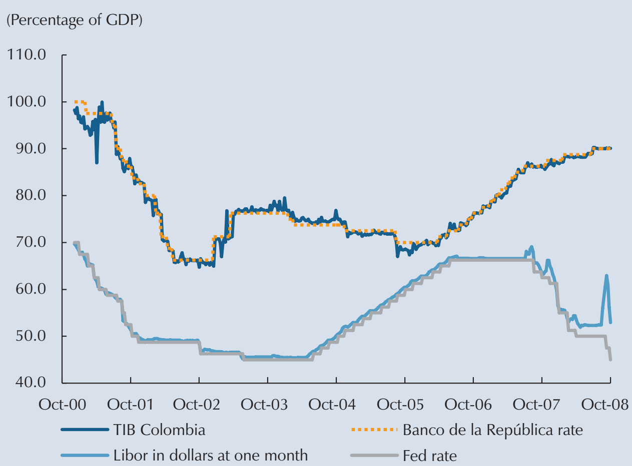
Table B2.2
Financial System in Colombia foreign currency investments as a portion of total assets
Balance sheets at August 2008

| Institution | Value of foreign currency investments (billions of pesos) (a) | Total assets (billions of pesos) (b) | Portion (a)/(b) |
|---|---|---|---|
| Pension funds a/ | 5,701,1 | 56,586,4 | 10.1 |
| Fogafín b/ | 4,790,2 | 8,350,6 | 57.4 |
| Lending entities b/ | 2,494,8 | 161,959,2 | 1.5 |
| Voluntary pension funds a/ | 1,155,5 | 7,207,8 | 16.0 |
| Insurance b/ | 890,4 | 16,612,4 | 5.4 |
| Severance funds a/ | 295,7 | 4,363,4 | 6.8 |
| **Total** | **15,327,7** | **255,079,7** | **6.0** |

a/ Total portfolio
b/ Total assets
Source: Office of the Financial Superintendent.

moved on par with the Central Bank's policy rate (Graph B2.4), and other market rates at different maturities have seen no major change.

Graph B2.4
United States and Colombia: Central Banks interest rate



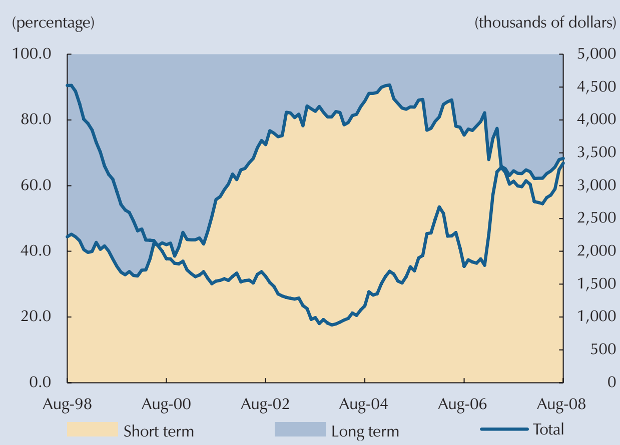

With respect to external financing for credit institutions, the figures at August show US$3,342 m in debt, including $US2.283 m in loans under one year (Graph B2.5). These amounts do not come to more than 5% of total M3 and are less than the financial system's entire investment in TES. Therefore, if the Colombian financial system were to see its external borrowing facilities cut off, the need for that kind of liquidity could be satisfied through the Central Bank of Colombia with repos in pesos.

However, if the international constraints on borrowing continue, and interest rates remain high, the cost of external funding for the Colombian financial system could increase and would eventually affect companies and households through higher interest rates on lending.

The foregoing, coupled with other bank performance indicators such as the moderate percentage of the portfolio at risk, better levels of loan-loss provisioning, high profits and a more suitable regulatory system, as well as the figures at August, would seen to indicate the health of financial system in Colombia has yet to pose a risk to the country's economy.[2]

Accordingly, it is likely the international crisis will spread to the Colombian economy through other channels, such as higher external borrowing costs, less foreign direct investment, weaker external demand, and fewer workers' remittances, among others.

Graph B2.5
Financial system external debt




Source: Office of the Financial Superintendent.

2 See the September 2008 edition of *The Financial Stability Report* for a full analysis on the health of the financial system.

# III. Macroeconomic Outlook

**The outlook for world economic growth** has been seriously jeopardized by the financial crisis.

**In contrast to the last edition of this report,** the risk of inflation worldwide is expected to be much lower, given less growth and lower raw material prices. This being the case, the influx of capital into Colombia could be reduced substantially.

**The projections for growth in Colombia** declined as well, which suggests the future is likely to see little demand-pulled inflationary pressure.

**Coupled with lower raw material prices, this situation** makes a reduction in internal inflation during 2009 almost certain. However, the second-round effects, high expectations and sharp depreciation in the price of the peso could lessen that decline.

## A. THE INTERNATIONAL SITUATION

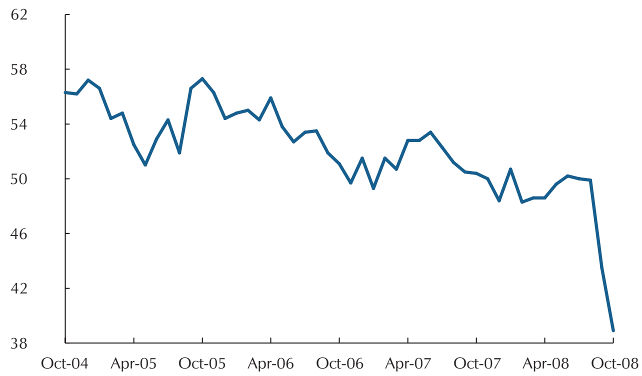
The events of the past month at the international level reveal a more profound financial crisis than was forecast in earlier reports. In fact, those events signify the collapse of much of the world's financial architecture and the consolidation of a serious credit crunch for many developed and emerging market economies, which could have a lasting impact on global economic performance.

*The U.S. and Euro Zone economies were in a recession by the third quarter.*

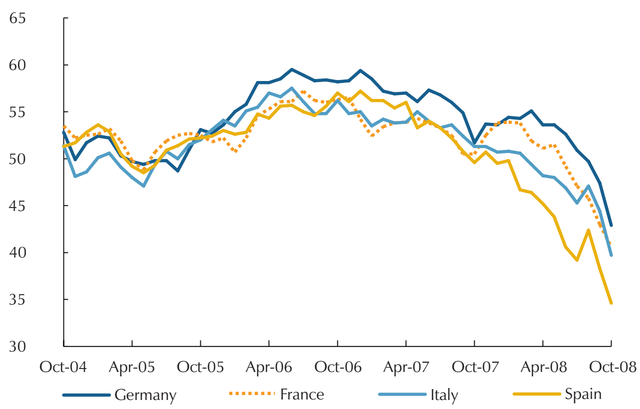
Despite fiscal and monetary-policy intervention by economic authorities in the United States and Europe, the market has yet to recover from the instability and lack of confidence. In this environment, the outlook for world economic growth plunged. Several indicators of productive activity already reflect sharp

Graph 44
U.S. and European manufacturing production index

A. In the United States a/




B. In Europe b/




a/ Institute for supply management's manufacturing index.
b/ Purchasing managers index (PMI).
Source: Bloomberg and Datastream.

Graph 45
U.S. Consumer Confidence Index a/
(U.S. Conference Board)


a/ Data at October 31, 2008.
Source: Bloomberg.

deterioration, so much so that economies such as that of the United States and those in the Euro Zone are now in a recession. Manufacturing production indicators in the Euro Zone, the United Kingdom and the United States have fallen sharply in recent months (Graphs 44 and 45). Other indicators, such as those for manufacturing production and retail and automobile sales have declined as well in the last few months and remain low.

Specifically, in the United States, although the second quarter saw a 2.8% annualized quarterly increase in economic activity, prospects for growth in the third and particularly in the fourth quarter are troubling.[17] The fiscal stimuli used to bolster spending in the first half of the year will be difficult to maintain in the future, without further undermining public finances that are already in poor shape. Likewise it does not appear the improvement witnessed in the external sector during the first half of the year will extend to the rest of 2008 and to 2009, given the anticipated slowdown in the world economy and a strong dollar. Moreover, the credit crunch, the job market figures, housing prices, and consumer perception have grown worse. For example, consumer confidence in October was at its lowest level since 1967, which was the first year with information on consumer confidence[18] (Graph 45).

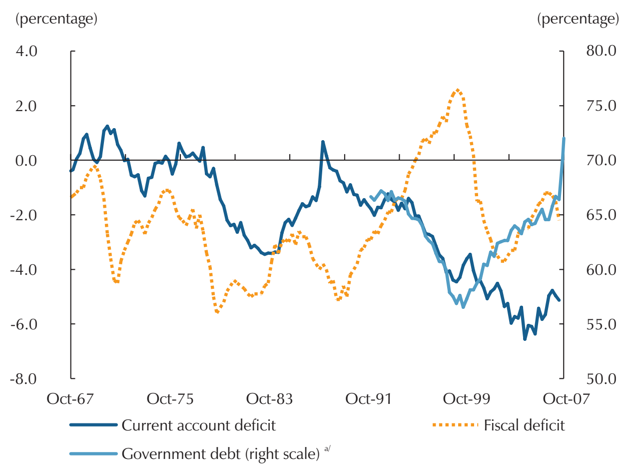
This being the case, it is becoming increasingly probable the U.S. economy is headed for a recession that would last for several quarters. The coming recession also is likely to be far more serious than the economic reversals witnessed in the last eighteen years, and could be the size of the setback reported in the early eighties.

17 The provisional figure for U.S. economic growth in the third quarter was announced at the time this report was written. It was -0.3%, confirming the serious expected setback in economic activity in the United States.

18 Unemployment was 6.1% by September 2008, and the annual variation in the housing price index (Case Shiller Composite 20) was -16.6% by August 2008.

The recession quite likely will tend to aggravate the problems of the financial system in the United States and in many developed and emergent market economies in general. The initial shock caused by the mortgage-debt and subprime crisis could be followed by other shocks, if it spreads to other economies. The risk to consumer lending is particularly high, given the likely increase in unemployment, coupled with tighter and more expensive credit. Accordingly, the financial system's problems may continue to grow for some time, perhaps falling into a vicious circle of poor performance in the financial and productive sectors.

Graph 46
U.S. Macroeconomic imbalances




a/ The public debt for 2008 was calculated taking into account the US$700 billion program to rescue the financial system.
Source: Bloomberg and Datastream.

The situation could further jeopardize the stability of public finances in the United States and in other developed countries, insofar as their governments have announced they will guarantee deposits with the financial system. For example, in the case of the United States, the US$700 billion rescue plan approved by the U.S. Congress is expected to raise the federal government's debt from 67% of 75% of GDP (Graph 46).

Given this situation, the forecasts for U.S. economic growth in 2008 and 2009 were slashed in this report compared to earlier predictions. Specifically, the U.S. economy is expected to decline as of the second half of 2008 and up until mid-2009. This would lead to an increase in GDP of 1.3% to 1.4% in 2008 as a whole, which assumes negative growth in the second half of the year. A drop between -0.2% and -1.4%, is forecast for 2009, although recent news indicates the more negative situation could emerge (Table 9).

As for the Euro Zone, the International Monetary Fund (FMI) is projecting 1.3% growth in 2008 and 0.2% in 2009, which also means some decline in output between the second half of this year and the first half of the next. However, this report does not rule out the possibility of those forecasts being reduced. Japan is in a similar situation; the IMF expects that country's economy to grow by 0.7% in 2008 and by 0.5% in 2009, also accompanied by a contraction in the coming quarters (Table 9).

*The expectation in this report is that economic growth in the United States will be between 1,3% and 1.4% in 2008 and between -0.2% and -1.4% for the whole of 2009.*

For the emerging market economies, this scenario assumes the risk of economic destabilization and a sharp deterioration in growth, far more than was anticipated in earlier editions of this report. The stock market devaluations and the strong depreciation in currencies against the dollar, particularly those reported during September and October, are an unfortunate sign in that respect (See Chapter II).

Table 9
Developments in real growth forecasts for Colombia's major trading partners

| | 2006 | 2007 | Projections | |
|---|---|---|---|---|
| | | | 2008 | 2009 |
| Major partners | | | | |
| United States [a/] | 2.8 | 2.0 | (1.4 y 1.3) | (-0.2 y -1.4) |
| Euro Zone [a/] | 2.8 | 2.6 | 1.4 | (0.0 y -1.0) |
| Venezuela [a/] | 10.3 | 8.6 | 5.7 | (3.0 y 0.0) |
| Ecuador [a/] | 3.9 | 2.0 | (3.0 y 2.5) | (1.0 y 0.5) |
| Other partners | | | | |
| Japan | 2.4 | 2.1 | 0.7 | 0.5 |
| China | 10.4 | 11.2 | 9.7 | 9.3 |
| Peru | 7.6 | 9.0 | 8.9 | 6.5 |
| Mexico | 4.8 | 3.2 | 2.2 | 2.0 |
| Chile | 4.3 | 5.1 | 4.2 | 3.6 |
| Argentina | 8.5 | 8.7 | 6.4 | 3.8 |
| Brazil | 3.8 | 5.4 | 5.2 | 3.5 |
| Bolivia | 4.8 | 4.6 | 5.3 | 5.0 |
| Developed countries | 3.0 | 2.6 | 1.5 | 0.5 |
| Developing countries | 7.9 | 8.0 | 6.9 | 6.1 |
| World Total | 5.1 | 5.0 | 3.9 | 3.0 |

a/ The forecast range is based on our two scenarios: (1) a moderate economic recession in the United States (bottom of the range) and (2) a sharp recession (top of the range).
Sources: Bloomberg, Latin Focus Consensus Forecast, IMF and Banco de la República (Central Bank of Colombia).

The region's economic performance up until the second quarter showed some differences. For instance, Colombia, Brazil and Chile exhibited a slowdown in economic activity, while others maintained an acceptable level. Peru, in particular, has performed well and is now the fastest growing economy in the region.

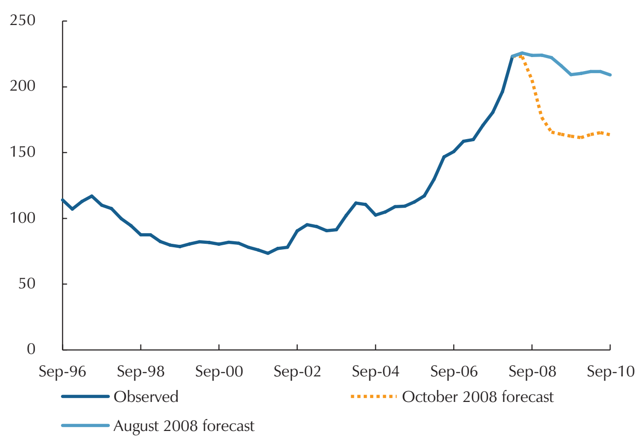
Economic activity in Venezuela was up by 7.1% during the second quarter of 2008, which is more than the market expected. The bulk of that growth was due to sectors such as construction and communications, which expanded in an atmosphere of extremely high oil prices. Internal demand, for its part, grew by 8.9% and was bolstered mainly by spending on government consumption. This offset the dramatic slump in household spending, which already was evident at the start of year. Total investment remained at extremely low levels compared to the two previous years; this was evident in the first quarter as well.

*Various emerging countries have begun to show the effects of the global financial crisis.*

During the third quarter of 2008, the pace of economic growth in a number of emerging markets began to show the effects of the world financial crisis. In China, for example, several indicators such as the Purchasing Managers Index (PMI) for manufacturing and the Industrial Production Index (IP) reflect a major slowdown.[19] These trends are expected to continue into the fourth quarter the year and during 2009, which is why the country's forecasts for growth have been reduced (Table 9).

A continued drop in raw material prices, coupled with less growth worldwide, could be a serious blow to the countries of the sub-region in terms of fiscal stability and the soundness of their external sectors. In addition to the Colombian economy, others are vulnerable as well, such as the Venezuelan and Ecuadoran economies, which are two of Colombia's most important trading partners. The forecasts for the Venezuelan economy have been reduced in this report compared to earlier editions. Next year, given the depth of the external crisis and the outlook for oil prices, growth is expected to be in the 0% to 3% range (as opposed to a forecast of around 4% in the last edition of this report).

Graph 47
Total commodity price index, excluding oil (WCF)




Source: Economist Intelligence Unit.

With the reduced forecasts for growth world-wide, as indicated already, the expectations for commodity prices were lowered in this report. In fact, they have dropped sharply in recent weeks. According to forecasts by The Economist Intelligence Unit (EIU), commodity prices (excluding energy) are expected to continue to decline during the remainder of 2008 and in the first half of 2009, which should bring them to levels similar to those observed in 2007. If so, the cumulative drop in commodity prices would come to 21.1% by mid-2009 compared to the high point in mid-2008 (Graph 47).

As for oil, the projections in the last edition of this report were much higher (US$120 a barrel, on average, in 2009). In this edition, the expectation is that WTI will average US$105.6 a barrel in 2008, which would mean levels under $90 a barrel during the rest of the year. As for 2009, the new forecast for West Texas Intermediate (WTI) is between US$60 and US$85 (Table 10). This range assumes there will be no important efforts on the part of exporting countries to restrict supply, or that any such efforts would be unsuccessful. The ceiling and the floor of this range are associated with the forecasts for growth in the United States, as indicated earlier.

Given the observed and anticipated drop in raw material prices, added to less growth worldwide, the risk of inflation throughout the world is yielding considerable ground. In September, the figures for consumer inflation in

19 The manufacturing PMI was 44.6 for October, which is the lowest since the index was established (January 2005). Moreover, the annual variation in industrial production declined from 12.8% in August to 11.4% in September.

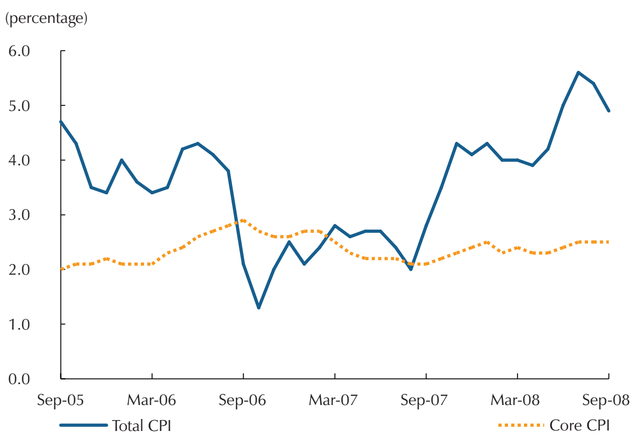
Table 10
International prices

| Product | 2005 | 2006 | 2007 | Projection for 2008 | | Projection for 2009 [d] | |
|---|---|---|---|---|---|---|---|
| | | | | Current [a] | Previous [b] | Scenario A | Scenario B |
| Coffee (ex dock) (USD/pound) | 1.20 | 1.18 | 1.26 | 1.44 | 1.40 | 1.28 | 1.00 |
| Oil - WTI (USD/barrel) | 56.6 | 66.1 | 72.3 | 105.6 | 125.0 | 85.0 | 60.0 |
| Colombian oil (USD/barrel) [c] | 49.8 | 58.3 | 66.2 | 98.9 | 118.3 | 79.5 | 54.5 |
| Coal (USD/ton) | 47.8 | 48.0 | 50.8 | 68.6 | 73.2 | 68.6 | 55.9 |
| Ferronickel (USD/pound) | 2.4 | 3.6 | 5.5 | 3.4 | 3.7 | 2.5 | 1.9 |
| Gold (USD/troy ounce) | 445 | 605 | 697 | 915 | 912 | 936 | 1000 |

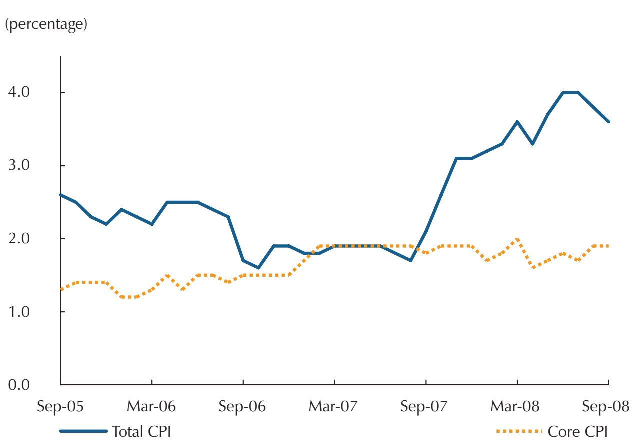
a/ Balance of payments estimated in October 2008
b/ Balance of payments estimated in July 2008
c/ Average price of crudes exported by Colombia, assuming an average WTI price of US$105.6 in 2008.
d/ Scenarios A and B pertain, respectively, to a moderate and severe financial recession in the United States.
Source: Central Bank of Colombia

Graph 48
Annual consumer inflation in the United States and the Euro Zone

A. United States




B. Euro Zone




Sources: Bloomberg and Datastream.

the United States already revealed a sharper than expected drop (to 4.9%), and this tendency may continue in the next few months and during part of 2009 (Graph 48, Panel A). Inflation in the Euro Zone has begun to give way as well: it was 3.2% in October as opposed to 3.6% in September (Graph 48, Panel B).[20] In terms of the emerging economies, the reduction in inflation will depend mainly on how their exchange rates perform in relation to the dollar.

With this outlook, it is quite likely the central banks of the developed countries will lower their intervention rates in the coming quarters. In fact, they were acting in coordination by early October, having cut their benchmark rates to address the problems already created by the crisis (Table 11). However, as mentioned in the section on financial markets, monetary authorities in the United States have very little leeway to lower their rates, something that is not as critical in the European case.

As for the central banks of emerging economies, some cut their rates as well in recent weeks. China is an example, and India is expected to follow suit. In the case of the Latin American banks, the market

20 The figure for October is preliminary, since the official statistics are not released until mid-November.

Table 11
Central banks benchmark rates

| | Actual level | Latest change | Next meeting |
|---|---|---|---|
| United States | 1.50 | 08 Oct 08 (-50 bp) | 29-Oct-08 |
| Euro Zone | 3.75 | 8 Oct 08 (-50 bp) | 6-Nov-08 |
| United Kingdom | 4.50 | 8 Oct 08 (-50 bp) | 6 Nov 08 |
| Czech Republic | 3.50 | 7 Aug 08 (-25 bp) | 6-Nov-08 |
| Japan | 0.50 | 21 Feb 07 (+25 bp) | 31-Oct-08 |
| Brazil | 13.75 | 10 Sep 08 (+75 bp) | 30-Oct-08 |
| Mexico | 8.25 | 15 Aug 08 (+25 bp) | 28-Nov-08 |
| Chile | 8.25 | 4 Sep 08 (+50 bp) | 13-Nov-08 |
| Colombia | 10.00 | 25 Jul 08 (+25 bp) | 24-Oct-08 |
| Peru | 6.50 | 11 Sep 08 (+25 bp) | 13-Nov-08 |
| Turkey | 16.75 | 17 Jul 08 (+50 bp) | 22-Oct-08 |
| China | 6.93 | 8 Oct 08 (-27 bp) | IV Qtr. 08 |
| New Zealand | 7.50 | 11 Sep 08 (-50 bp) | 23-Oct-08 |
| Australia | 6.00 | 7 Oct 08 (-100 bp) | 4-Nov-08 |
| India | 9.00 | 29 Jul 08 (+50 bp) | 24-Oct-08 |
| South Africa | 12.00 | 12 Jun 08 (+50 bp) | 11-Dec-08 |

Source: Central Banks, Bloomberg and JPMorgan

expects them to begin to lower their benchmark rates only as of 2009.

In short, the central scenario for this report contemplates a recession in the United States and in several European economies. Intervention by the authorities in those countries would reduce the magnitude of the recession, but would not avoid it. In this context, access to financing will continue to be tight and risk premiums will remain high, which would affect the availability of external resources for the region's emerging economies. In addition, raw material prices are declining; however, this has a positive effect on inflation and could pave the way for a looser monetary policy in a number of economies throughout the region, provided there is not too much pressure from the exchange rate.

## B. BALANCE OF PAYMENTS

The figures at June 2008 show a significant correction in the country's current account imbalance (2.0% of GDP) with respect to the same period in 2007 (3.6% of GDP). The improvement in the external balance was rooted in high international prices for Colombia's leading export products, particularly oil, coupled with good momentum in non-traditional exports, fueled by demand in Venezuela and the United States.

As indicated in the June edition of this report, the Central Bank's projection for the current account deficit in 2008 (equal to 2.3% of GDP) is based on a continuation of favorable terms of trade and good external demand. According to what was suggested at the beginning of this chapter, it is feasible to expect those conditions might not continue during the second half of the year and possibly in 2009. There is a great deal of uncertainty about the extent of the economic slowdown worldwide, how export commodity prices will behave, and how they will affect the Venezuelan economy.

For this reason, as explained at the start of this chapter, several projection scenarios were constructed with some of the basic assumptions used to estimate the balance of payments; namely, growth in the United States and in Colombia's major trading partners, international prices for oil and other commodities, and Venezuelan demand for Colombian exports (Tables 9 and 10). As to financial flows, it is possible to expect that certain decisions on foreign direct investment in Colombia might be affected if the international credit crunch continues, especially during 2009.

*The current account deficit is expected to increase.*

In short, the projections for 2009 point to less income from traditional exports and a slowdown in non-traditional sales. Moreover, the anticipated deceleration in the Colombian economy probably will mean less demand for imported goods. In any case, the net effect will be reflected in an increase in Colombia's current account deficit to levels near 3.0% of GDP in 2008 and 2009. As noted, this will depend on the extent of the external shocks and their effect on Colombian exports.

## C. INTERNAL GROWTH

### 1. Forecasts for 2008

GDP growth has slowed considerably so far this year and is expected to continue to do so throughout the remainder of 2008. The decline has been more pronounced than was anticipated in earlier editions of this report, which made it necessary to revise the forecasts in this edition.

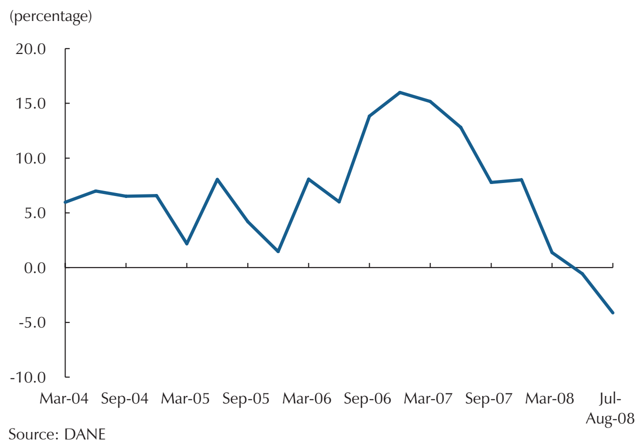
The fact that the shocks experienced during the first half of the year will continue during the last six months of 2008 and will have more of an impact than was expected initially are part of the reason for this situation. Sales to Venezuela are a case in point. They will be influenced not only by the trade restrictions that already are evident in the transport material sector, but also by less of an increase in Venezuelan demand due to eventual changes in the rules on foreign exchange and modifications in commercial regulations. In addition, there are the labor strikes that affected several productive sectors in Colombia during the third quarter and at the start of the fourth (i.e. the freight strike, the strike in the sugar cane sector, and the strikes at different levels of the public sector.)

The abrupt deterioration in external conditions also is expected to begin to have an impact on Colombia's economic performance towards the end of 2008, particularly because of less demand for the country's export products, the effect on national revenue due to lower prices for our exports, and the possible decline in remittances from expatriates. In earlier editions of this report, these effects were viewed as risks to the central forecast; however, they now are emerging and beginning to be incorporated into that forecast.

*Labor strikes and work stoppages will affect economic growth in Colombia during the second half of 2008.*

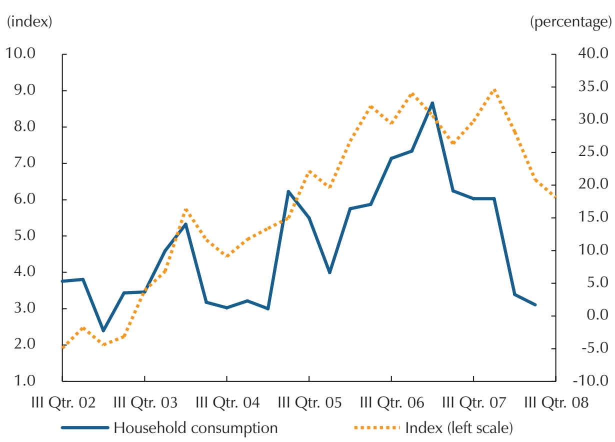
Accordingly, the forecast in this edition of *The Inflation Report* is 3.0% to 4.0% growth in 2008, which is less than the range estimated last quarter (between 3.3% and 5.3%), for the reasons already mentioned. These new figures are regarded as consistent with the latest information on the productive sector, which suggests the rate of expansion during the third quarter may be similar or slightly less than the rate observed during the second quarter.

Graph 49
Real manufacturing production index annual variation (quarterly average)



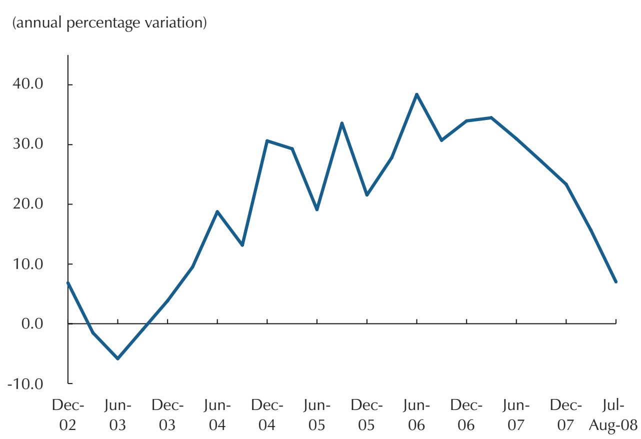

Source: DANE

Graph 50
Household consumption and the Fedesarrollo consumer survey




a/ Average of the indexes: consumer confidence, consumption expectations and economic conditions, respectively.
Source: Fedesarrollo; calculations by Banco de la República (Central Bank of Colombia).

Graph 51
Consumer goods imports in dollars




Source: DANE

For example, the figures released by DANE show -4.8% average annual industrial growth between July and August, compared to -0.6% in the second quarter (Graph 49). The slowdown would be due to poor internal sales performance, along with more moderate growth in sales to Venezuela. Commercial retail sales reflect a similar situation, having increased much less since the second quarter (0.3%) and in July and August (0.5%) compared to 2007 (10%).

As for consumption, the Fedesarrollo indicator also dropped during the third quarter, although less so than between the first and second quarters of the year (Graph 50). Likewise, imports of consumer goods continued to slow in July and August (Graph 51), partly echoing the current momentum in consumption and signaling its possible tendency in the final quarter of the year.

Table 12 shows the decline in growth in 2008 per type of spending, as related to the midpoint of the range projected for GDP (3.5%). Generally, all the spending components are expected to contract significantly in 2008 compared to the situation observed in 2007. Likewise, nearly all these components are expected to exhibit a slowdown in the second half of 2008 compared to the first six months of the year.

External demand, in particular, is expected to be one of the spending components that will shed the most momentum during the remainder of the year, partly because of the sharp deterioration in the world economy. Private investment likely will suffer a similar fate, although it is expected to continue to grow significantly, since most of the projects in question are already underway and their completion should not be affected by fewer external prospects. As for public investment, the forecasts contemplate a recovery in growth rates compared to the first half of the year, although this expenditure will be limited in general by slow approval and execution of local development plans. Given all of the above, the rate of investment would come to 29% of GDP in the 2008, which is more than in 2007 (27.6%) and well above the historic average (16%).

Table 12
GDP Growth by type of spending

| | 2007 | 2008 (proj) |
|---|---|---|
| End consumption | 6.5 | 2.8 |
| Household consumption | 6.7 | 3.0 |
| Government consumption | 5.9 | 2.0 |
| Gross capital formation | 20.6 | 8.5 |
| Internal end demand | 9.7 | 4.2 |
| Total exports | 11.9 | 6.7 |
| Total imports | 19.0 | 8.3 |
| Gross domestic product | 7.7 | 3.5 |

(proj) projected.
Source: DANE.

As for consumption, the bulk of the slowdown would have occurred during the first half of the year, which is why only marginal changes in the tendency are expected for the second half. Factors such as the decline in the buying power of income due to higher inflation and tighter credit, partly because of the country's monetary policy, will continue to restrict growth in this aggregate during the remainder of the year.

## 2. Forecasts for 2009

Exercises simulating economic performance in 2009 are presented in this report for the first time. They were conducted with a variety of tools, including a multi-sector computable general equilibrium model. The results depend largely on the balance-of-payment scenarios that are taken into account and the role the government would play through public spending and investment. According to the model, the slowdown observed in 2008 would continue during 2009, the year when most of the effects of the international crisis would emerge.

The forecasts are based on several principal assumptions: 1) a sharp drop in export commodity prices in all the scenarios, similar to the contraction outlined in earlier sections; 2) less growth in the economies of our major trading partners, including an economic contraction in the United States during 2009; 3) a reduction in workers' remittances, and 4) public spending (central and local governments) on both consumption and investment that offers a high degree of uncertainty and could move within a wide range, specifically from levels slightly above those witnessed in 2008 to clearly higher levels (6.5%).

Fewer prospects for external growth and less access to capital flows raise the risk of continued deterioration in the Colombian economy during 2009. This could occur through a number of channels (see Box 2); however, those associated with investment and less external demand are the most important.

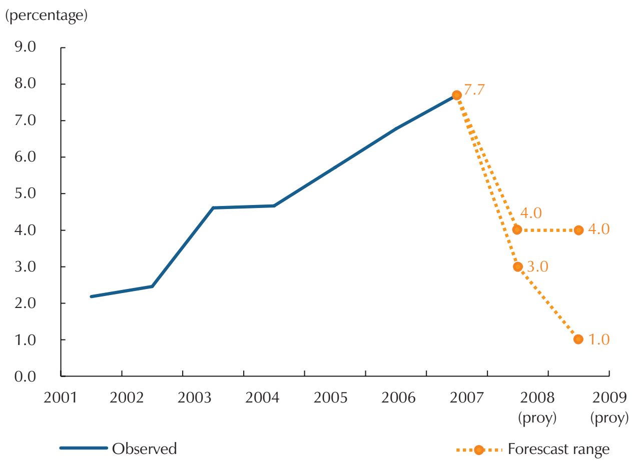
In the case of investment, projects feasibly could be reconsidered or revised by both national and foreign entrepreneurs, which would imply much less growth in this aggregate compared to the increase observed during 2008 and in previous years. This would extract a great deal of momentum from the economy as a whole, since investment has been the most dynamic expenditure in the last four years.

*There is considerable uncertainty about how investment will perform in 2009.*

As for real exports, the outlook is more complex. Although less demand in key markets such as the United States, Venezuela and Ecuador implies a decline, especially in non-traditional exports, it could be offset in part by real depreciation in the price of the Colombian peso. Even so, the risks on this front are in the direction of less growth, since demand usually plays a more predominant role than the exchange rate, and because it is unclear what depreciation there might be in relation to the Venezuelan currency.

Eventually, public spending could compensate for the reduction in sources of external growth. For instance, public investment, particularly on the part of local governments, could play an important role, given limited budget performance in 2008 and the projects announced for 2009 (mostly in Bogota). However, tighter financial conditions could curb a number of initiatives on that front. Moreover, the slowdown in economic growth in 2008 would be a blow to tax revenue next year, exerting pressure for a less counter-cyclical and more austere fiscal policy.

Graph 52
GDP Growth forecasts for 2008




Source: Banco de la República (Central Bank of Colombia).

Consequently, the uncertainty about how the Colombian economy will perform is unusually high for 2009. Taking that into account, this report estimates growth next year will be somewhere between 1.0% and 4.0% (Graph 52). The span of the range is associated primarily with the different balance-of-payment scenarios and with the assumptions regarding the public sector. It is felt that growth is more likely to be situated in the lower half of the range, given the sharp deterioration on the external front and the risks weighing on public spending and private investment in that environment.

## D. PROSPECTS FOR INFLATION

External conditions have changed dramatically in the last few months, which could mean major changes in the forecasts for growth and inflation in Colombia for next year and 2010. Although past editions of this report anticipated the prospect of less economic growth in the U.S. and in the world economy than was the consensus among analysts, a slowdown as dramatic and enduring as the one now being forecast due to the events of the last two months on international financial markets was not anticipated.

Furthermore, a quarter ago, *The Inflation Report* predicted upward risks to inflation due to high raw material prices worldwide, which offered a favorable environment for the countries that export raw materials, such as Colombia. Nevertheless, with the sharp deterioration in credit conditions the world over, plus fears of a recession, those risks disappeared quickly, giving way to what is now an opposite effect in the form of a pronounced decline in raw material prices.

The world economy faces a reduction in inflationary pressures.

Accordingly, everything seems to indicate the world economy will see inflationary pressures drop sharply in the long term, a situation that even could lead to world deflation. Were that to happen, the reduced pressure would be felt in Colombia and would help to lower internal inflation. However, for Colombia, the external crisis also entails pressure for depreciation in the exchange rate, which can have repercussions on internal prices, partially and temporarily annulling deflationary external pressures and postponing the decline in inflation.

### 1. Short-term Forecasts

Despite the drop in raw material prices since July and the general reduction in inflationary pressures observed nowadays, the trend towards inflation in Colombia would not be overly affected in the short term, particularly during the remainder of 2008 and at the beginning of 2009. Internal inflation will remain high; that is, above the target range defined for 2008. In this report, the forecasts for total consumer inflation for two quarters rose slightly in relation to what was anticipated in June. This is because food inflation and regulated price inflation were revised upwards, inasmuch as the third-quarter results were slightly higher than expected.

Food inflation, which explains much of the build-up in consumer inflation so far this year, should remain high, but with a downward tendency in the future. The expectation in this report is that perishable food prices will begin to ease during the fourth quarter of this year, allowing for a decline in annual inflation in this sub-basket that would extend into the first quarter of next year. Processed foods should follow a similar path, being favored in part by the drop in international prices for raw materials.

No significant reduction in non-food CPI inflation is expected during the fourth quarter of the year, compared to the outcome in September, but a decline is expected at the start of next year. Less of an increase in prices for regulated items and non-tradables, excluding food and regulated prices, is expected at the beginning of 2009 and would offset a slight build-up in tradable inflation excluding food and regulated prices.

Inflation in Colombia will remain high for the rest of 2008.

However, all signs indicate that pressure from demand has been, and will continue to be less in the next two quarters, compared to what was forecast in earlier reports. Nevertheless, in the short term, this will not lead to a significant drop in non-food inflation, nor in non-food inflation excluding food and regulated prices, given the presence of other bullish factors such as price indexing, high expectations and relatively high costs. In Colombia, similar circumstances in the past have generated downward price rigidities and high inflationary inertia.

The forecast for 2009 indicates a sharp reduction in demand-pulled inflationary pressures.

## 2. Long-term Tendencies

The monetary-policy efforts undertaken in the past, coupled with an international economic environment marked by less growth than previously anticipated, should allow for less inflation in Colombia in the long term. So far this year, inflation in Colombia has yet to respond fully to the monetary-policy changes adopted as of mid-2006. This is mainly due to the appearance of exogenous factors that have brought pressure to bear on internal prices and costs for over a year. These factors have offset the drop in pressure from demand induced by a monetary policy that is not as lax.

Nevertheless, during the year to date, demand in Colombia has been affected by exogenous factors such as limited public investment by territorial government administrations and the loss of momentum in exports to Venezuela. Added to this is the recent abrupt drop in prospects for growth worldwide. Accordingly, the increase in output is below its potential for 2008 and this trend is likely to continue and become more pronounced in 2009. Considering these new circumstances, the current forecasts for inflation anticipate an output gap closer to zero by the end of 2008, and assume a high probability that it will be in negative terrain during 2009.

This being the case, the new inflation forecast contemplates far less inflationary pressure from demand in 2009 and 2010, compared to the forecasts in past reports. This should result in lower core inflation and mainly less non-tradable inflation.

On the other hand, the models used by the Bank suggest the new external situation will imply a stronger trend towards depreciation in the exchange rate than was predicted previously. This will be reflected in an increase in tradable inflation that was not considered in the last report. However, exchange rate pass-through to prices would tend to be smoother than in previous episodes of depreciation, for two reasons. First, the peso will weaken in the midst of a sharp drop in international prices for raw materials, which could even extend to the price of manufactured goods. Secondly, depreciation would occur in conjunction with less aggregate demand and growth in Colombia. And, as has been the case on other occasions, exchange rate pass-through to inflation is limited under such circumstances.

Tradable inflation may increase.

The anticipated drop in international prices for raw materials also will lead to lower inflation in the prices of regulated goods and services during the next two years. However, that tendency will be gradual, since the international price hikes observed up until mid-year were not passed on entirely to internal prices. Fuels are a case in point. Moreover the indexing mechanisms included in the formulas used to regulate the price of public utilities and services will allow for relatively high readjustments during in the first half of 2009, inasmuch as inflation is expected to end 2008 at a high level and costs have continued to

*The food shock is expected to reverse gradually in 2009 and 2010.*

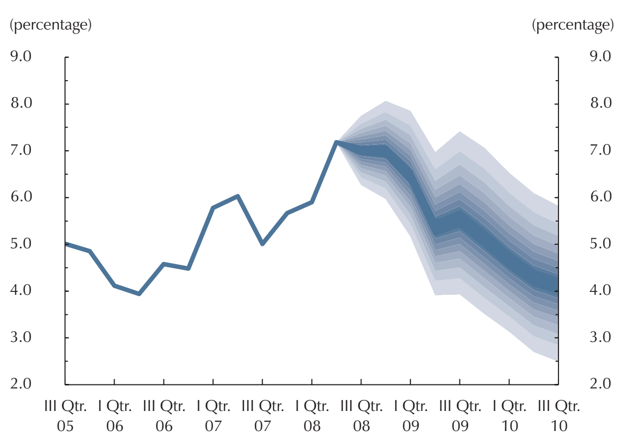
rise, as indicated by the PPI. Finally, depending on its intensity, depreciation also could be a factor that would offset less external pressure.

As predicted in the June report, a gradual reversal of the food shock witnessed during the past year and a half is anticipated for 2009 and 2010. Like regulated prices, the speed of disinflation in this basket will depend on how the drop in external food prices combines with depreciation in the exchange rate. A rapid reduction would be favored by weaker internal and external demand towards next year, which can favor lower inflation mainly in processed foods and meals outside the home.

Given all of the above, this report expects a major reduction in total inflation between the second quarter of 2009 and early 2010 (Graph 53). The most likely path is not much different from the forecast published last quarter, partly because the reduced pressure exerted by demand and costs will be offset by added exchange pressure and further indexing. In the case of non-food inflation, it likely will be less towards the end of 2009 than what was forecast in the last report (Graph 54). It is important to point out that these forecasts assume an active monetary policy.

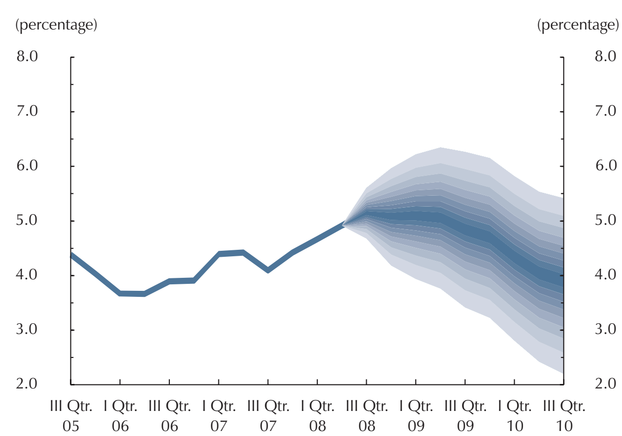
In short, inflationary pressures have declined and will continue to do so if the world economy loses momentum. However, further depreciation in the price of the peso can postpone or slow a decline in consumer inflation in Colombia. Nonetheless, if the country's monetary policy is credible and remains committed to the long-term targets, future inflation in Colombia should give way. On the other hand, the speed at which inflationary pressures are subsiding can be important to determining the stance of monetary policy in the short term.

Graph 53
Fan chart of total inflation [a/]




a/ The forecasts are based on a monetary policy that is designed to ensure the long-term targets for inflation will be met.
Source: Calculations by Banco de la República (Central Bank of Colombia).

Graph 54
Fan Chart of Non-food Inflation [a/]




a/ The forecasts are based on a monetary policy that is designed to ensure the long-term targets for inflation will be met.
Calculations by Banco de la República (Central Bank of Colombia).

*The Colombian peso faces the risk of further depreciation, which can delay the decline in inflation.*

## 3. Risk Balance

As is customary, the balance of risk for total consumer inflation and non-food inflation is summarized in fan charts (Graphs 53 and 54). The balance remains broad, if we consider the added uncertainty about growth, both local and worldwide, and the tremendous amount of volatility witnessed in international prices for food and raw materials, and in the exchange rate.

The bullish risks to inflation in the long term have declined. This is reflected in more balanced probabilities surrounding the central forecasts, as opposed to the June report, when the bias was upward.

The main downward risk would be *weaker than expected demand*. The forecasts presented in this report assume a moderate recession in the United States and in other industrialized countries. However, conditions in the world economy are deteriorating rapidly, forcing these forecasts to be revised downward. If this risk were to materialize, the effect on the Colombian economy could be greater than was contemplated initially. This would be reflected in an even sharper slowdown in demand and pressure on prices, both directly and indirectly, through lower international prices for imported items (raw materials and industrial goods).

On the other hand, the main risks to an increase are:

- Depreciation in the exchange rate. How the Colombian economy performs depends a great deal on changes in international prices for commodities such as oil and coal. Moreover, the country's exports are highly concentrated. Most go to the United States, Venezuela and Ecuador, countries that have been seriously affected by the current crisis. This influences the perception of risk with respect to Colombia as opposed to other emerging market economies at a time when credit is tight everywhere and external capital has become more selective. Consequently, it could exert more upward pressure on the exchange rate than was considered in the last report, including important implications for inflation, at least in 2009.

- *High expectations of inflation and their effect on wages and prices.* So far this year, wages have not been a source of major inflationary pressure, at least for the urban economy. However, the rise in inflation and its high level this year can prompt agreements on wage hikes in excess of those required if inflation is to decline quickly in 2009. The recent strikes warn of the emergence of this risk next year. On the other hand, a sharp increase in real wages at a time when demand is weak and business confidence is low would affect job creation, without necessarily easing

*High expectations and the effect on wages pose an important risk to inflation in 2009.*

inflationary pressures. As to prices, the most important risks posed by indexing are concentrated in rentals and education.

- *High costs and delayed second round effects.* Although international prices are substantially lower, the PPI-based cost indicators show even higher adjustments that have yet to be passed on to prices.

- *Food prices*. Relative food prices in Colombia have been on the rise for several years, partly due to changes in external prices and costs. However, there are internal components associated with increase in rural wages or transportation costs that would continue and would lessen the decline in inflation. Nor is it possible to rule out upward pressure from supply shocks (bad weather, strikes, work stoppages) or an eventual reactivation of the cattle retention cycle.

## Box 3
## WORKERS' REMITTANCES

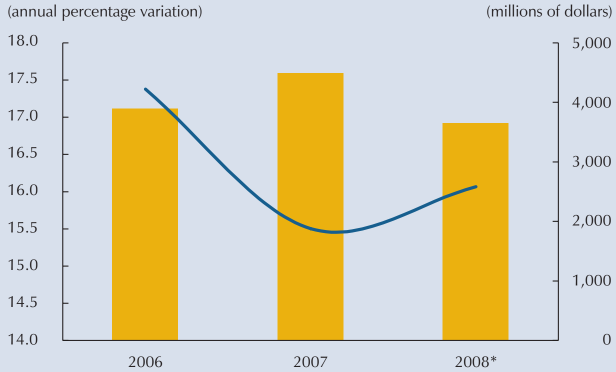
Aarón Garavito
María Mercedes Collazos*

The decline in growth worldwide as a result of the financial crisis and high unemployment among Colombian workers who reside outside the country is one of the channels through which the level of workers' remittances to Colombia (Box 2) may be affected. This section offers a brief summary of the importance of remittances to Colombia and the factors that influence their momentum.

### 1. Importance of Remittances to Colombia

The last three years witnessed a considerable increase in workers' remittances. In 2006, this source of income came to US$3.890 million, which represents 17.4% annual growth. In 2007 and so far this year (January-September 2008) the annual variation in workers' remittances is around 16% (Graph B3.1).

Graph B3.1
Workers' Remittances: 2006-2008




| | 2006 | 2007 | 2008 |
|---|---|---|---|
| Millions of dollars | 3.890 | 4.493 | 3.653 |
| Percentage variation in the accumulation | 17.4% | 15.5% | 16.1% |

Note: January-September
Source: Balance of payments, Banco de la República (Central Bank of Colombia).

In terms of GDP, workers' remittances accounted for 1.7% in 2000 and a maximum of 3.3% in 2003. By June 2008, they were equal to 1.9% of semi-annual GDP. As a portion of available household income, workers' remittances reached a high point in 2003 (4.5%), then declined in 2006 (3.4%). Their relative importance with respect to total current income in the balance of payments went from 8.4% in 2000 to 15.4% in 2003, and was 9.2% by June 2008. This last decline is explained mainly by the increase in income from merchandise exports.

Therefore, up to now, workers' remittances have played a counter-cyclical role by lessening the drop in household consumption during times of economic crisis and rising unemployment in Colombia. They also have helped to reduce the current account deficit.

### 2. The Momentum in Remittances: Origin and Factors

Most of the accumulation during 2008, up to June, originated in Spain and the United States (72%), and to a lesser degree in Venezuela[1] (11%). These are the countries where the majority of Colombian migrants are located (DANE, 2005 Census).

Internally, the momentum in workers' remittances is explained by a continuation of the migratory process. Internationally, it is the result of devaluation in the price of the dollar worldwide and the particular development of the economic sector where Colombians are employed in countries that are migration recipients (Spain and the United States).

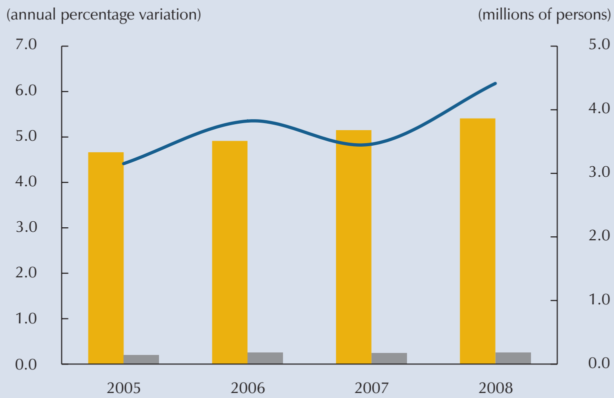
#### a. Developments in Migration

Between 1998 and 2002, nearly one million Colombians left the country permanently and, during the same period, workers' remittances increased from US$788 m to US$2.453 m (Graph R3.2). The latest figures show there has been no halt in this process, and the international migration of Colombians during 2005-2008 increased at an annual rate of 5%. This figure is equivalent to more than 150 thousand persons/year (Graphs B3.2 and B3.3).

* The authors work with the External Sector Area of the Technical and Economic Data Department. Mr. Garavito is a balance-of-payments expert and Ms. Collazos is a specialized professional. The opinions expressed in this article are solely the responsibility of the authors and imply no commitment on the part of the Central Bank of Colombia or its Board of Directors.

1 *Quarterly Survey of Workers'* Remittances, Central Bank of Colombia, June 2009.

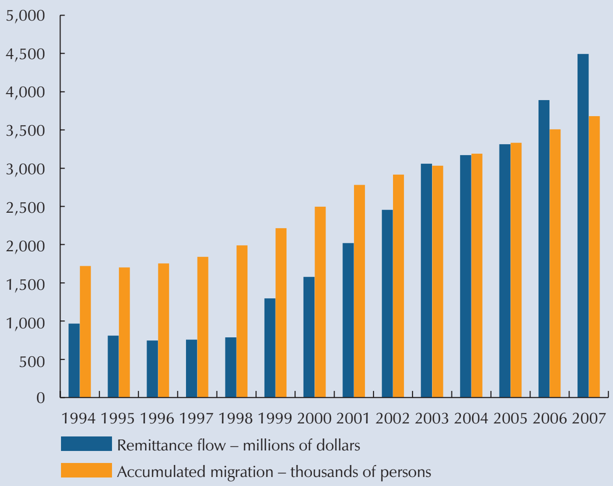
Graph B3.2
Accumulated Migration and Migratory Flow




| | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|
| Accumulated | 3.331.107 | 3.509.367 | 3.679.285 | 3.679.285[1/] |
| Flow | 140.815 | 178.260 | 169.918 | 184.739[2/] |
| Percentage variation in accumulation | 4.4% | 5.4% | 4.8% | 6.2%[3/] |

1/ Accumulated at September
2/ January-September
3/ Variation with respect to December 2007
Source: Authors' calculations based on information from the National Security Bureau (DAS) and DANE.

Graph B3.3
Remittance flows and accumulated migration




Sources: Authors' calculations based on information from the National Security Bureau (DAS) and DANE, Banco de la República (Central Bank of Colombia), Balance of Payments.

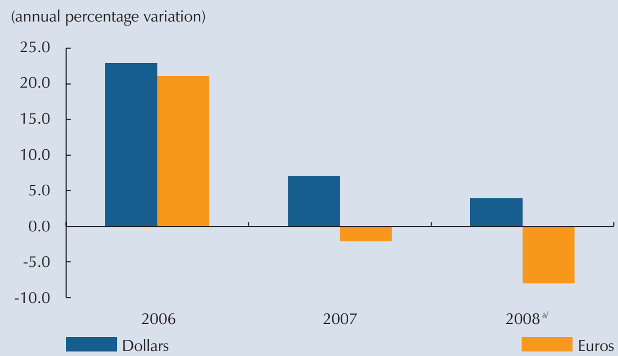
### b. International Factors

In terms of the many variables associated with the economic context in countries that receive Colombian migrants and the impact of those variables on remittance flows, the following aspects, in addition to employment, are considered relevant: i) how the currency in which Colombian migrants are paid relates to the dollar, and ii) the performance of the economic sector where the worker is employed.

#### a) Dollar Devaluation Worldwide

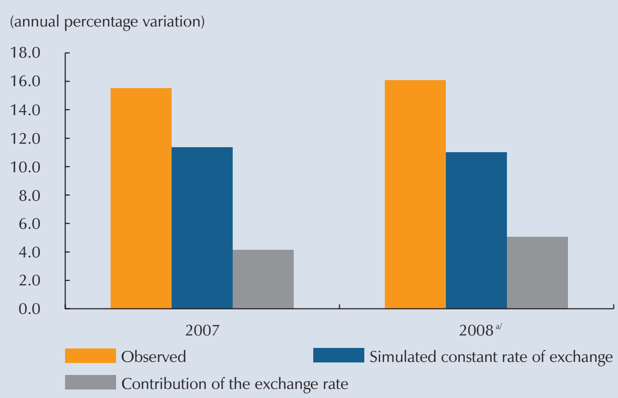
Available figures show that nearly 40% of all remittances to Colombia originate in the Euro Zone.[2] Therefore, a build-up or weakening in the euro against the dollar is one factor that determines how remittances develop. In 2007, devaluation of the dollar against the euro averaged 9.2%, and increased to 13.2% during the first nine months of 2008. At the same time, remittances from the Euro Zone, in Euros, dropped by -2.1% and -8.0%, respectively. However, their value in dollars rose by 7.0% in 2007 and 3.9% in 2008. Consequently, the decline in remittances in Euros has been more than offset by the impact of the euro-dollar exchange rate.

Graph B3.4
Euro zone remittances
(rate of annual variation in dollars and euros)




Figures at September
Source: Authors' calculations, quarterly remittance survey by Banco de la República (Central Bank of Colombia).

Graph B3.5
Extent of the dollar-euro exchange effect on total remittances




a/ Figures at September
Source: Authors' calculations, quarterly remittance survey by Banco de la República (Central Bank of Colombia).

2 *Quarterly Survey of Workers'* Remittances, Central Bank of Colombia, June 2008.

When measuring the impact of dollar-euro devaluation on remittance flows, we find that 5.1% of the 16.1% annual increase in remittances during the first nine months of 2008 is explained by that phenomenon. In other words, had the exchange rate remained at the level observed during the same month the year before, remittances would have increased by 11%, as opposed to 16% (Graphs B3.4 and B3.5).

b) Developments in the Economic Sector where Colombians Work

So far this year, the two largest economies that are recipients of Colombian manpower – Spain and the United States – have reported less growth, and even negative rates, compared to 2007. Unemployment is up as a result, and so is inflation. Consequently, the income-producing capacity of wage earners and, therefore, worker's remittances have deteriorated.

In the case of Spain, from the standpoint of supply, the three most important economic activities (services, construction and industry) have seen a decline in growth. Nonetheless, employment in the service sector has not been affected as much, since jobs continue to be created, although at a lower proportion than in past years.[3] In this context, the income-producing capacity of Colombian migrants has been affected less, in relative terms, than that of other groups. According to an immigrant survey conducted in Spain during 2007, the proportion of Colombians who work in the service sector came to 72.8% (Table B3.1).

Colombians living in the United States face a similar situation. There has been an increase in employment in the service sector during 2008, but at a slower pace, while employment in industry and agriculture is down. As illustrated in Table B3.2, 84.5% of the Colombians who live in the United States are employed largely in the service sector, while only 7.5% work in construction. For the group of countries in question, Colombians are the Hispanic population with the lowest participation in construction.

However, it is important to point out that unemployment among the Colombian population in the United States increased from 3.5% between January and July 2007 to 6.09% during the same period in 2008. This forecasts a negative impact on the rate of growth in remittances from the U.S. economy.

Table B3.1
Percentage distribution of migrants in the United States, by branch of economic activity
January - July 2008

| Sector | Colombia | Ecuador | Mexico | El Salvador | Guatemala | Dominican Republic | Honduras |
|---|---|---|---|---|---|---|---|
| Primary | 0.4 | 0.1 | 5.4 | 1.0 | 1.2 | 0.2 | 0.8 |
| Industrial | 15.1 | 34.8 | 37.4 | 29.5 | 35.3 | 16.6 | 37.0 |
| Construction | 7.5 | 19.0 | 21.6 | 16.8 | 23.5 | 5.8 | 28.9 |
| Mining | | | | | | | |
| Manufacturing | 7.1 | 15.2 | 15.0 | 11.2 | 11.6 | 10.7 | 7.8 |
| Electricity | 0.5 | 0.6 | 0.2 | 0.9 | 0.1 | 0.1 | 0.4 |
| Services | 84.5 | 65.1 | 57.2 | 69.5 | 63.5 | 83.2 | 62.2 |
| **Total** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** | **100.0** |

Source: Based on the Current Population Survey published by the United States census office.

Table B3.2
Percentage distribution of immigrants in Spain, by labor activity [a/]

| | Colombia | Ecuador | Bolivia |
|---|---|---|---|
| Agriculture, livestock, hunting and forestry | 2.1 | 7.1 | 6.0 |
| Fishing | 0.1 | | |
| Extractive industries | 0.2 | 0.2 | 0.5 |
| Manufacturing industry | 9.6 | 10.9 | 8.2 |
| Production and distribution of electrical energy, gas and water | 0.0 | 0.0 | 2.1 |
| Construction | 15.1 | 24.0 | 20.3 |
| Services | 72.3 | 57.3 | 60.7 |
| **Total** | **100** | **100** | **100** |

a/ Immigrants who have resided in the country for more than three years
Source: 2007 National Survey of Immigrants, National Statistics Bureau of Spain.

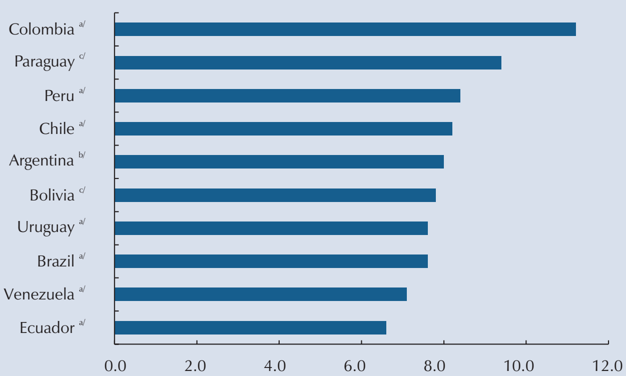
3 For example, the variation in full-time jobs during the second quarter of 2008 was 2.3%, while job loss in construction came to 6.4%.

## Box 4
## FEMALE PARTICIPATION IN THE JOB MARKET AND ITS IMPACT ON UNEMPLOYMENT IN COLOMBIA

José David Pulido*

During the third quarter of 2008, the various quarterly unemployment rates calculated in Colombia saw annual increases for the first time since the end of 2002.[1] This is a cause for concern, particularly because Colombia is currently the country in South America where unemployment is the highest (Graph B4.1). Moreover, according to figures compiled by the International Labor Organization, it also has a relatively high rate compared to 180 countries at different levels of development.[2] The purpose of this section is to look at one of the reasons why structural unemployment in Colombia is high, in light of economic theory and empirical findings. That reason is the particularly large increase in female participation in the job market during the last two decades, compared to the way this variable has evolved in other countries the world over.

Graph B4.1
Employment Rates in South America




a/ At August 2008
b/ At June 2008
c/ Average for 2007.
Sources: Bloomberg, CIA World Factbook.

A number of labor studies have attempted to identify the different factors that explain Colombia's relatively high unemployment rates.[3] Broadly speaking, these can be divided into two major groups: the factors associated with problems surrounding the demand for labor and those originating with the labor supply. There are two approaches with respect to the first group: the microeconomic factors related to labor market rigidities (the presence of real minimum wages that are quite high, the cost of hiring and firing, etc.) and the macroeconomic factors associated with output performance and the relative participation of productive factors. Monetary and fiscal policies obviously play an important role with respect to the latter. Studies on demand are more common in Colombia. The second group involves explanations related to demographic, cultural and institutional factors, as well as incentives of an economic nature, among others, which condition the labor supply through the population's participation in the job market.

Economic policies in Colombia have tried to emphasize solutions on the demand side by attempting to tone down the rigidities in the labor market; the idea is to make that market more flexible, which is plausible in light of economic theory. However, from a labor-supply standpoint, when the variations in Colombian employment rates (measured via the global employment rate) are compared internationally, in a long-term perspective, the increase in job market participation in Colombia was among the largest in the world during last 25 years (Table B4.1). This would appear to suggest the impact of supply policies on unemployment rates has been underestimated, or those policies have not been entirely effective.

One of the primary reasons[4] for the increase in job market participatioColombia during recent decades is the dramatic rise in the supply of female labor (Graph B4.2). According to figures released by the World Bank, the Colombian female participation rate is second only to that of Ecuador in terms of having grown the most worldwide in the last

* The author is an expert with the Inflation Section of the Programming and Inflation Department. Adolfo Cobo's comments and Alexandra Heredia's cooperation in preparing the graphs are much appreciated. The opinions in this article are the responsibility of the author and imply no commitment on the part of the Central Bank of Colombia or its Board of Directors.

1 The unemployment rate increased slightly in 2006, but apparently because of a change in the method used to conduct the Comprehensive Household Survey (GEIH in Spanish).

2 According to the ILO, unemployment is high in Colombia, which ranks 125 among 180 countries. It is important to bear in mind the difficulty of comparing labor statistics among countries, given the different methods and definitions used by each national bureau of statistics. Therefore, one must be careful about drawing conclusions from these comparisons and others presented throughout this section.

3 Perhaps one of the most productive attempts to analyze the causes of Colombian unemployment was that of the Central Bank of Colombia during a symposium on employment and the economy held in March 2001, which was attended by prominent international and Colombian experts on labor matters. See Urutia, M. (2001) for a report on the meeting.

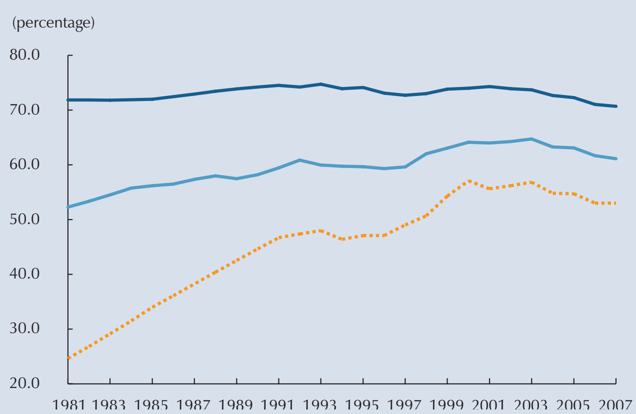
4 Other permanent causes (entry of younger people into the labor market) and those of a temporary nature (increased participation of secondary workers during times of crisis) also can explain the historic increase in job-market participation in Colombia, although less so. See López (2001) or Santa María and Rojas (2001) for a detailed analysis.

Table B4.1
Countries with the most increase in labor market participation during the last two decades

| | Global participation rate | Average 1980- 1985 | Average 2000 -2005 | Difference: 1980-1985 vs. 2000-2005 |
|---|---|---|---|---|
| 1 | Colombia (World Bank) | 57.0 | 74.2 | 17.2 |
| 2 | Ecuador | 56.4 | 72.3 | 16.0 |
| 3 | Holland | 63.6 | 75.8 | 12.3 |
| 4 | Peru | 59.1 | 71.4 | 12.3 |
| 5 | Venezuela | 58.5 | 70.5 | 12.0 |
| 6 | Uruguay | 63.3 | 75.2 | 11.9 |
| 7 | Kuwait | 60.4 | 72.2 | 11.8 |
| 8 | Argentina | 58.4 | 70.2 | 11.8 |
| 9 | Macau. China | 60.0 | 71.0 | 11.0 |
| 10 | Paraguay | 65.9 | 76.7 | 10.8 |
| 11 | Siria | 53.2 | 63.3 | 10.0 |
| **12** | **Colombia (DANE)** | **53.9** | **63.9** | **10.0** |
| 13 | Bolivia | 63.4 | 73.3 | 9.9 |
| 14 | Algeria | 49.8 | 59.4 | 9.6 |
| 15 | Switzerland | 71.9 | 81.0 | 9.1 |
| 16 | Jordan | 45.6 | 54.6 | 9.0 |
| 17 | Cuba | 57.7 | 66.5 | 8.7 |
| 18 | Spain | 58.7 | 67.3 | 8.6 |
| 19 | Ireland | 60.3 | 68.9 | 8.5 |
| 20 | Panamá | 59.5 | 67.9 | 8.3 |

Note: For Colombia, a comparison was made with the figures reported by DANE.
Sources: DANE and The World Bank.

Graph B4.2
Global participation rate in seven cities



Source: DANE.

25 years (Table B4.2). This being the case, it is crucial to analyze the possible reasons for women's growing massive entry into the job market.

The increase in female participation in job markets the world over has been a secular tendency in most economies, and particularly in the developing countries of the West. The literature on economic development offers two possible explanations for this phenomenon. On the one hand, the modernization theorists (e.g. Heckman, 1980) suggest the rise in female participation is, in itself, one of the fundamental features of the modernization process resulting from more educational opportunities for women, changes in occupational structures (more jobs in the service sector), lower fertility rates coupled with less responsibility for domestic chores, and more cultural acceptance of working women, among others. On the other hand, the defenders of the systemic perspective (e.g. Ward 1985) explain such increases in the developing countries as a survival strategy for low-income families, given the fact that wages in developing economies are particularly low, which also gives those countries a comparative advantage when competing with the rest of the world.

In Colombia, experts on the subject have found a variety of evidence that confirms the presence of both modernizing and systemic reasons for the high increase in female participation in the country's job market during recent decades. To begin with, as López (2001) emphasized, lower fertility rates in Colombia and more equal access to education have allowed female participation to grow in a tendential way, expanding the cycle of women's labor. Secondly, Santa María and Rojas (2001) show the decline in family income also is related to the build-up in Colombian women's global participation rate. They conclude it is the female labor supply that reacts the most when the economic situation deteriorates. This negative correlation between female participation and household income can generate a dangerous endogeneity between the rates of unemployment and participation. In a recessive phase of the cycle, when unemployment rates are on the rise, there are incentives to increase participation, not only on the part of women who are not household heads, but of secondary male workers as well. This leads to subsequent increases in unemployment rates. In Colombia, this positive effect of unemployment and participation rates is verified by Arango and Posada (2002).

In conclusion, besides the demographic, cultural and institutional reasons inherent in the modernization process, which have helped to increase Colombian women's participation in the job market, as in most countries throughout the world, there is evidence of an additional reason for the rise in women's participation in Colombia; namely, the sharp drop in family income during periods of economic recession. The significant increase in female

Table B4.2
Countries with the most increase in female participation in the job market during the last two decades

| | Global participation rate-women | Average 1980-1985 | Average 2000-2005 | Difference: 1980-1985 vs. 2000-2005 |
|---|---|---|---|---|
| 1 | Ecuador | 25.9 | 59.9 | 34.0 |
| **2** | **Colombia (World Bank)** | **32.0** | **63.5** | **31.5** |
| **3** | **Colombia (DANE)** | **28.1** | **55.9** | **27.8** |
| 4 | Argentina | 33.8 | 58.2 | 24.4 |
| 5 | Paraguay | 42.8 | 66.2 | 23.4 |
| 6 | Peru | 35.8 | 59.2 | 23.4 |
| 7 | Uruguay | 41.9 | 64.7 | 22.8 |
| 8 | Kuwait | 25.1 | 47.1 | 22.0 |
| 9 | Ireland | 36.5 | 58.3 | 21.7 |
| 10 | Venezuela | 34.5 | 55.7 | 21.2 |
| 11 | Bolivia | 42.3 | 63.5 | 21.2 |
| 12 | Spain | 33.7 | 54.4 | 20.7 |
| 13 | Holland | 47.8 | 67.4 | 19.6 |
| 14 | Switzerland | 54.2 | 73.7 | 19.6 |
| 15 | Macau. China | 44.4 | 63.1 | 18.7 |
| 16 | United Arab Emirates | 18.8 | 37.0 | 18.2 |
| 17 | The Maldives | 24.6 | 42.5 | 17.9 |
| 18 | Brazil | 42.6 | 60.0 | 17.3 |
| 19 | Costa Rica | 28.7 | 45.3 | 16.6 |
| 20 | Belize | 27.1 | 43.4 | 16.3 |

Note: A comparison was done for Colombia with the figures reported by DANE.
Sources: DANE and the World Bank

participation particular to the Colombian economy, which is evident when compared to how this variable has developed in other countries of the world, could be alleviated through a greater number of effective supply policies that prevent temporary shocks in labor participation, such as those occasioned when family income plummets, from becoming permanent. Therefore, an emphasis on supply policies with an important stabilizing component appears to be a necessity in terms of economic policy.

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# Attachment

## Macroeconomic Forecasts by Local and Foreign Analysts

The following is a summary of the latest forecasts developed by local and foreign analysts with respect to Colombia's main economic variables in 2008 and 2009. When consulted, the analysts had access to data available for October 2008.

### 1. FORECASTS FOR 2008

The local analysts expect 3.9% economic growth, on average, which is 100 bp less than the forecast published in the report for the second quarter. The foreign analysts consulted for this edition expect GDP growth to average 4.0%.

Table A1
Forecasts for 2008

| | Real GDP growth | Inflation: CPI | Nominal exchange rate end of: | Nominal DTF (percentage) | Fiscal deficit (percentage of GDP) | Unemployment rate for the thirteen major cities (percentage) |
|---|---|---|---|---|---|---|
| | (percentage) | | | | | |
| **Local Analysts** | | | | | | |
| Alianza Valores | 3.8 | 6.8 | 2.140 | 9.3 | (0.5) | 11.5 |
| ANIF | 3.7 | 7.2 | n.d. | 9.7 | 3.1 | 11.6 |
| Banco de Bogotá | 4.0 | 7.0 | 2.100 | 10.0 | 1.5 | 10.5 |
| Banco Santander | 3.8 | 7.0 | 2.200 | 9.7 | 1.0 | 10.8 |
| Bancolombia-Suvalor | 4.6 | 7.2 | 1.956 | 10.2 | 2.8 | 11.8 |
| BBVA Colombia | 3.7 | 7.2 | 2.134 | 9.4 | (1.0) | 11.5 |
| Corficolombiana | 3.9 | 7.1 | 2.432 | 10.2 | n.d. | n.d. |
| Fedesarrollo | 3.9 | 7.2 | 2.310 | 10.2 | (1.4) | 11.5 |
| **Average** | **3.9** | **7.1** | **2.182** | **9.8** | **0.8** | **11.3** |
| **Foreign analysts** | | | | | | |
| Citi Bank | 3.5 | 7.0 | 2.300 | 10.0 | 0.5 | 11.8 |
| Deutsche Bank | 4.4 | 5.9 | 2.100 | n.d. | (1.8) | 10.9 |
| Goldman Sachs | 4.3 | 7.1 | 2.020 | n.d. | (1.4) | n.d. |
| JP Morgan | 3.7 | 6.7 | 2.150 | 10.0 | (1.5) | n.d. |
| **Average** | **4.0** | **6.7** | **2.143** | **10.0** | **(1.1)** | **11.4** |

n.d. not available
Source: Banco de la República (Central Bank of Colombia), based on electronically supplied data.

As to inflation forecasts, the local analysts expect a 7.1% increase in prices by the end of the year, while the foreign analysts anticipate 6.7% inflation, on average. This figure is above the target range for 2008 (3.5% to 4.5%).

Table A2
Forecasts for 2009

| | Real GDP growth (percentage) | CPI Inflation | Nominal exchange rate by year end: |
|---|---|---|---|
| **Local analysts** | | | |
| Alianza Valores | 2.5 | 5.3 | 2,540 |
| ANIF | 3.5 | 5.2 | - |
| Banco de Bogotá | 3.5 | 5.5 | 2,200 |
| Banco Santander | 2.5 | 5.5 | 2,330 |
| Bancolombia-Suvalor | 4.1 | 5.6 | 2,015 |
| BBVA Colombia | 3.0 | 4.5 | 2,239 |
| Corficolombiana | 3.4 | 5.6 | 2,479 |
| Fedesarrollo | 3.4 | 5.8 | 2,546 |
| **Average** | **3.2** | **5.4** | **2,336** |
| **Foreign analysts** | | | |
| Citi Bank | 2.5 | 5.0 | 2,400 |
| Deutsche Bank | 5.0 | 4.0 | 2,350 |
| Goldman Sachs | 4.6 | 4.9 | 2,100 |
| JP Morgan | 3.6 | 4.9 | 2,200 |
| **Average** | **3.9** | **4.7** | **2,263** |

n.d. not available
Source: Banco de la República (Central Bank of Colombia), based on electronically supplied data.

As to the exchange rate, the recent performance of the exchange market has dramatically influenced analysts' perception of the trend towards appreciation in the representative market rate of exchange (TRM in Spanish) observed up until a few months ago. Therefore, local analysts now expect the TRM to average COP$2,182 by the end of the year, compared to COP$1,831 in June. Foreign analysts expected the TRM to close out the year at COP$2.143.

As in the report on the second quarter, local analysts continue to expect the country's benchmark DTF rate to average 9.8; the foreign analysts anticipate 10.0%.

## 2. Forecasts for 2009

For 2009, the local analysts expected 3.2% growth, while the foreign analysts forecast 3.9%. The local analysts have higher expectations for inflation than the foreign analysts (5.4% as opposed to 4.7%). In terms of the exchange rate, the local analysts expect it to average COP $2.336, while the foreign analysts are predicting an average of COP$2.263.

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