

## INFLATION REPORT

June 2009



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Banco de la República CENTRAL BANK OF COLOMBIA Bogotá. D. C.. Colombia

# 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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# Assessment of Inflation and Policy Decisions

The first half of 2009 was characterized by falling annual inflation, largely because of the slowdown in food prices and, to a lesser extent, the sluggish pace of regulated price hikes. The core inflation indicators, which do not include the CPI items most sensitive to supply shocks, also exhibited a downward trend during that period.

By June 2009, the annual variation in CPI was 3.81%, which is below the target range for this year (between 4.5% and 5.5%), besides being 233 basis points (bp) less than the annual figure for inflation reported one quarter before and 386 bp less than annual inflation in the previous six-month period.

The sharp annual rise in food prices during 2008, which reached 13.2% in December, was reversed to 2.8% in June of this year, which explains 81% of the slowdown in inflation during the first half of 2009. The annual variation in regulated prices during the same period went from 9.5% to 5.9% and accounted for 17.3% of the reduction in inflation. By June 2009, the annual variation in non-tradables without food and regulated prices was 5.2%, which is 50 bp less than what it was in December.

Tradables without food and regulated prices constituted the only group to post an increase in annual inflation. Although the dollar price of imported goods declined during in the first half of 2009, annual depreciation in the Colombian peso surpassed that reduction and helped to raise annual inflation in this group from 2.4% to 2.8% during the same period.

In June 2009, the annual average of the four core inflation indicators calculated traditionally by the Central Bank of Colombia was 4.6%, which is 100 bp less than in December 2008.

As the first half of the year progressed and annual inflation slowed, expectations and forecasts for inflation suggested it would be below the target range by the

end of the year. Accordingly, the latest forecast by the Central Bank's technical team indicates the annual variation in CPI at December 2009 will likely be less than 4%.

On the external front, the economic growth figures at March 2009 for the developed countries show a deepening of the recession observed since 2008. Most Latin American economies also experienced less annual growth in output during that quarter, as well as a pronounced drop in inflation accompanied by major annual reductions in the value of world exports, particularly of the industrial variety. Less external demand also contributed to the fact that international commodity prices were lower during the first half of 2009 compared to the average reported in 2008. However, they were similar to the level observed in mid-2007.

Therefore, the drop in the dollar value of traditional Colombian exports between January and May 2009 with respect to the same period the year before (-24.0%) is explained largely by less external demand and lower international prices. On the same dates, non-traditional exports also showed the effects of the trade restrictions imposed by Venezuela and Ecuador, having fallen by 10.3%. The decline in remittances, lower levels of foreign direct investment, and the deterioration in consumer and producer confidence are other channels through which the international crisis has been passed on.

The annual growth figures published by DANE for the first quarter of 2009 (-0.6%) confirmed the projected weakness in internal demand. The annual variation in household consumption was negative (-0.5%) for the first time since the same quarter in 2002. Government consumption rose at an annual rate of 0.2%, which is less than the average increase in 2008. Gross capital formation dropped 1.3% owing to less investment in transport equipment (-22.4%) and constructions and buildings (-14.8%). However, an even larger decline in investment was avoided, thanks to the annual increase in civil works (21.2%).

Although economic activity remains weak, available information for the second quarter shows business and consumer expectations point to signs of recover during the second half of the year. The financial system's performance remains healthy and lending continues to increase at a good pace, fueled largely by the commercial loan portfolio. Moreover, the decline in interest rates on loans to companies and families is expected to continue.

On the external front, several recent indicators of household and business expectations for the future of the economy in developed countries registered positive changes in tendency. The recovery of production in China and India, like the revival of exports in other Asian countries, provided an incentive to commodity purchases and to better capital market performance. The sharp depreciation in Latin American currencies at the start of 2009 was corrected in the context of a weakening dollar and less perception of risk with respect to the emerging countries. However, the negative effects of the world crisis

are expected to continue throughout the year and growth in most countries is expected to be low, even less than long-term growth.

With the new data at hand, the Central Bank's technical team forecasts negative annual growth for the second quarter of 2009 and a recovery during the second half of this year. The estimated GDP growth range for all of 2009 is between -1% and 1%.

#### **Monetary Policy Decisions**

Monetary policy decisions were adopted in a scenario marked by the downward trend in inflation and growth. The Board of Directors of the Central Bank of Colombia (BDCB) gradually lowered the Bank's intervention interest rate by 550 bp to 4.5% by the end of June 2009. The cuts were made as follows:

- In December 2008 and January 2009, the rate was lowered by 50 bp at each meeting, ending at 9%.
- Between February and May, it was lowered again by 100 bp a month to the 5% level. In May, the BDCB announced that any eventual reduction in the future would be less than the recent cuts, based on the data at hand.
- At its June meeting, the BDCB agreed to a 50 bp reduction, which placed the rate at 4.5%. It also announced that, given the data at hand, it does not expect to make any further reductions in the intervention interest rate in near future.

The 550 bp cut in the intervention interest rate reflects an expansive monetary policy that encourages sustainable growth in an environment of low and stable inflation. The sharp increase in money, less of a hike in food and regulated prices, an external context that is not quite so negative, and the added momentum in civil works suggest a gradual recovery in economic growth as of the second half of the year.

The Board of Directors will continue to monitor the international situation carefully, along with the pattern and forecasts for inflation and growth. It reiterated that monetary policy in the future will depend on whatever information becomes available.

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# I. Inflation and its Determining Factors

Annual consumer inflation fell more than expected during the second quarter and was below 4%, reversing a good portion of the upward shocks registered in past years.

Colombia's economic growth declined slightly during the first quarter, affected by the external crisis.

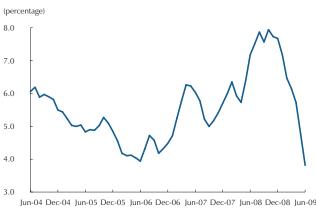
Surplus productive capacity remained at historically high levels during the first half of the year. Coupled with expectations for inflation, this tempered the price hikes for non-tradable goods and services.

Raw material and wage costs adjusted to declining rates that are near or below the inflation target.

#### A. RECENT DEVELOPMENTS IN INFLATION

The drop in annual consumer inflation during the second quarter was more than the Central Bank and most analysts expected. The figure for June was 3.8%, well

Graph 1 Annual total consumer inflation



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

below inflation the quarter before (6.1%). Coupled with the decline registered between November 2008 and March 2009, this reversed a good portion of the upward shocks reported during the period from 2007 to 2008. The figure for June 2009 is the lowest since July 1962 (3.7%) and is under the target range for 2009 (between 4.5% and 5.5%), although near to the minimum level reached in mid-2006 (Graph 1).

Accumulated inflation during the first half of this year came to 2.2%, which is far less than during the same period last year (6.0%) and the average for the last ten years (4.7%). This reflects excellent consumer price performance during the first six months of 2009.

Table 1 shows that 81% of the slowdown in annual inflation in the second quarter and, in general, during the first half of the year was concentrated in the consumer price index (CPI) for food; much of the rest is explained by the regulated CPI. The contribution from tradables and non-tradables without food and regulated prices was marginal.

Table 1 Annual Inflation Breakdown by Upward Pressure at June 2009

Description	Moight	Annual growth				Share (%) of the Slowdown
Description	Weight	Dec-08	Mar-09	May-09	Jun-09	between Dec-08 and Jun-09
Inflation						
Total	100.00	7.67	6.14	4.77	3.81	100.00
Non-food	71.79	5.11	4.90	4.40	4.27	19.00
Tradables	26.00	2.37	2.45	2.84	2.78	(4.67)
Non-tradables	30.52	5.24	5.36	4.69	4.73	6.40
Regulated	15.26	9.45	8.11	6.47	5.85	17.27
Food	28.21	13.17	8.67	5.51	2.81	81.00
Vegetables, fruits, tubers and milk	5.12	21.94	12.28	3.78	(3.68)	39.40
Cereals, oils and others	8.03	19.02	12.89	9.41	5.29	32.68
Food outside the home and others	11.59	7.27	6.71	5.98	5.99	6.36
Beef and beef substitutes	3.47	6.45	4.17	4.71	4.56	2.55

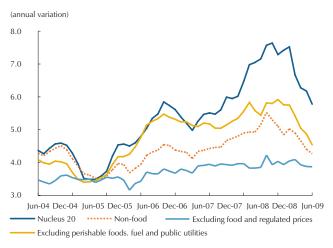
Source: DANE; Calculations by Banco de la Reública (Central Bank of Colombia).

Broadly speaking, there was much less inflationary pressure in Colombia during the first two quarters of 2009, and not just because the exogenous upward shocks of past years have disappeared. Weak internal demand and the sluggishness of some exports also helped to curb price hikes. Moreover, the slowdown in economic growth has affected the job market, resulting in wage hikes akin to the inflation targets, specifically in the case of workers in industry and commerce. This has helped to relieve pressure on costs.

The slowdown in annual inflation in the second quarter and, in general, during the first half of the year was concentrated in the consumer price index (CPI) for food (81%); much of the rest is explained by the regulated CPI.

Prices in Colombia and in most of the developed and emerging economies have followed a parallel cycle in recent years. Inflation accelerated between late 2007 and the third quarter of 2008, thanks to demand-pulled pressures that were manifest primarily in historically high increases in raw material prices, especially for oil and agricultural products. In the emerging countries, pressure was brought to bear mainly on food prices, given their important share of the consumer basket. At the end of last year, with the drop in world demand, inflation began to decline concurrently in most economies, pulled down by the reduction in those same prices. At this point in time, inflation in a number of developed economies is expected to end 2009 in negative terrain. All of these determinants have produced an important reduction in inflation expectations the world over.

Graph 2 Core Inflation Indicators



Graph 3 Tradable and Non-tradable CPI without Food and Regulated Prices



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

#### 1. Core Inflation

The current situation has allowed core inflation to return to levels that are compatible with the long-term targets. Since the end of last year, the various core inflation indicators estimated by the Central Bank have declined, particularly in the last three months, largely due to the impact fuel price cuts have had on some of these variables. Consequently, the average of the four indicators was 4.6% in June as opposed to 5.3% in March and 5.6% in December. (Graph 2).

CPI without perishable foods, fuel and public utilities (4.5%) was the only core inflation indicator to stay within the target range for 2009. Nucleus 20 (5.8%) surpassed the target, but posted significant declines during the last few months, while non-food CPI was 4.3%, which is below the inflation target.

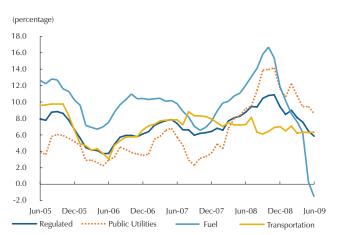
A breakdown of the non-food CPI shows the annual variation in tradable CPI without food and regulated prices was solely responsible for the upturn in annual inflation during the last two quarters from 2.4% in December to 2.5% in March and 2.8% in June (Graph 3). Vehicles, alcoholic beverages and certain medicines were the tradable items with the largest price hikes. In the past, there has been a closer correlation between this sub-basket and the exchange rate, a characteristic that would have continued to be evident so far this year. The actual behavior of tradable prices would include the devaluation that accumulated from mid-2008 to March of this year.

The other two non-food CPI components (non-tradable CPI and regulated CPI) helped to lower inflation in the last two quarters, but to different degrees (Graphs 3 and 4). The first of those components (non-tradable CPI without food and regulated prices) showed a downward tendency during the second quarter of 2009 (4.7%) and reached the lower part of the target range. This has not happened since mid-2006.

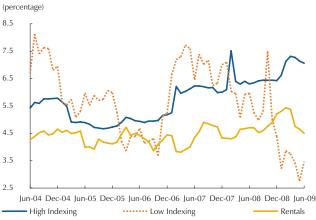
The current situation has allowed core inflation to return to levels that are compatible with the long-term targets.

The items that contributed the most to the decline are those that usually have limited indexing and little inertia. Their annual variation at June was only 4.0% as opposed to 4.3% by the end of 2008. Tourism and personal services are a case in point. The items with high indexing also continued to post declining annual variations, but at a slower pace and still at elevated levels (7.0% in June), particularly due to the influence of services related to

Graph 4 Regulated CPI by Components (annual variation)



Graph 5
Breakdown of non-tradable CPI without food and regulated prices
(annual variation)



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

education (enrollment fees) and banking (Graph 5). In the last few months, annual inflation in rentals, which are the third component of the non-tradable CPI, broke its upward trend and experienced the most prolonged decline in several years. Coupled with the performance described for the rest of the non-tradable basket of goods and services, this is an important indication of the decline in demand-pulled pressure and the drop in inflation expectations.

The annual variation in regulated CPI went from 9.5% in December to 5.9% in June (Graph 4). The slowdown was particularly sharp during the second quarter, due to the cut in internal gasoline prices during May, which was not contemplated in the forecasts included in the last edition of this report. The respective price index accumulated a decline of approximately 6% between December and June. This would have meant a decline in annual total inflation of nearly 30 bp, according to estimates done by the Central Bank of Colombia. It is important to emphasize that this impact on the CPI was multiplied by more than two between the previous basket and the one in effect since January 2009, inasmuch as the weight of gasoline increased from 1.08% to 2.91%.

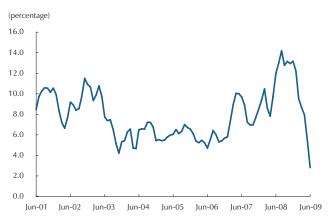
In the case of public utilities, relief originated with the price of gas, which fluctuates according to international fuel prices. Electricity prices continued to climb at high rates, although this situation could change in the coming quarters due to slow growth in demand within the sector.

#### 2. Food Inflation

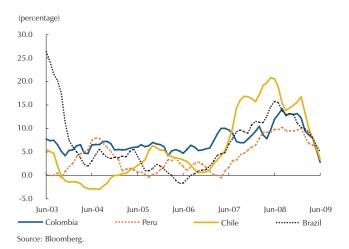
The first half of 2009 saw annual food inflation shrink significantly, beyond what was anticipated in previous reports. The reductions were especially pronounced during the second quarter, not only due to a lower price level, but also because the price hikes observed during the same period last year were considerable. The figure for June was 2.8%, a variation not witnessed since August 1999 (2.5%) and 590 bp below annual inflation by March (Graph 6).

This impact includes the direct effect of the increase in gasoline prices and the indirect effect of lower production costs for activities that use gasoline as input.

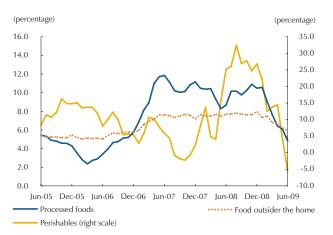
Graph 6 Food CPI (annual variation)



Graph 7 Food CPI for Latin American countries (annual variation)



Graph 8 Food CPI by components (annual variation)



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

The trend in food prices in Colombia has been observed in many other countries as well and to an even greater extent. Chile is an example (Graph 7). The drop is closely associated with the reduction in raw material and fuel prices on world markets, experienced in the wake of the crisis. In addition to these circumstances, the situation in Colombia also is related to factors linked, in part, to good agricultural production.

Consequently, food inflation has declined in the case of both perishables and processed foods. As for perishables, new crops, especially potatoes and certain fruits and vegetables, probably were encouraged by sufficient rainfall, lower production costs and last year's high prices. In addition to the decline in international grain and edible oil prices, processed foods also may have been influenced by weak demand (Graph 8).

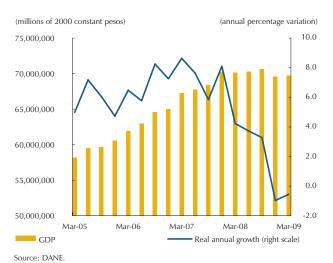
### B. FACTORS THAT DETERMINE INFLATION

### 1. Aggregate Demand in the First Quarter of 2009

According to the figures released by the National Bureau of Statistics (DANE) for the first quarter of 2009, gross domestic product (GDP) fell 0.6% compared to the same period in 2008 (Graph 9). This annual reduction is similar to what was forecast in previous reports, and less than anticipated by most economic analysts. DANE revised the annual growth figure for the fourth quarter of 2008 to -1.0% with respect to the initial estimate of -0.7%, but left the figure for 2008 as a whole at 2.5%. In terms of annual rates, the country saw negative GDP growth for two straight quarters. However, GDP in the first quarter of 2009 was slightly higher (0.2%) than during the quarter before. As a result, there was no additional setback in the output level.

Colombian economy during the last two quarters is related to the effects of the international financial crisis. The collapse of world trade has affected

#### Graph 9 Real GDP



exports, particularly non-traditional exports to the United States and to countries other than Ecuador and Venezuela. They have been seriously jeopardized since the fourth quarter of last year (both in dollars and volume).

This situation, coupled with the trade restrictions imposed by Venezuela and Ecuador, has been especially hard on the industrial sector, which is linked most closely to world trade. However, as will be shown later, total exports in real pesos do not reflect the extent of that decline, because the volume of raw material sales (oil, coal and ferronickel) remained dynamic.

Weakening external demand is not the only impact of the external crisis on Colombia. It also has

managed to undermine local demand (mainly private) through a variety of channels. One is the decline in consumer and investor confidence, which occasioned a slowdown in private consumption and investment. Similarly, lower terms of trade and fewer remittances reduced the amount of available income and probably, to some extent, neutralized the impact falling inflation had on income. In addition, there has been an increase in the perception of country risk and in the second-round effects of the slowdown in exports. These channels gained importance during the first quarter of this year compared to late 2008.

According to a breakdown of GDP by expenditure, the annual decline in local demand by the first quarter (0.5%) was the factor that contributed the most to the contraction in GDP with respect to the same quarter last year (Table 2). At the same time, net external demand, defined as the difference in constant pesos between exports and imports, declined 0.4%, but did not contribute to the annual reduction in GDP, given its limited magnitude.

Although DANE has provided no official breakdown of public and private demand within the country, an approximate breakdown can be estimated if public demand is equated to the sum of government consumption and investment in civil works, with the exception that a portion of the latter may pertain to costs incurred by the private sector. Generally speaking, public demand was the most dynamic GDP component in the first quarter, having increased by 5.0%. The impetus at the heart of public demand came almost entirely from spending on civil works, which registered an annual increase of 21.2%, partly due to the existence of a low base for comparison (in the first quarter of 2008). The expansion registered in subsectors such as river dredging, coastal and reservoir works, and mining constructions is a high point. The annual growth in public consumption during the same period was just 0.2%, accounting for a minimum contribution to GDP growth.

Like other economies in the region, the poor performance of the Colombian economy during the last two quarters is related to the effects of the international financial crisis.

Table 2
Real annual GDP growth by type of expenditure

		2008			2009	Contribution
	I Qtr.	II Qtr.	III Qtr.	IV Qtr.	I Qtr.	to I Qtr. 2009 growth
Private demand	7.0	6.3	4.3	2.8	(2.0)	(1.7)
Household consumption	4.3	2.8	1.5	0.5	(0.5)	(0.3)
Private GCF	9.1	16.1	7.7	(1.1)	(6.3)	(1.1)
Inventories	63.6	32.1	43.3	114.6	(8.3)	(0.3)
Public Demand	(2.8)	(2.4)	5.3	(5.0)	5.0	1.1
Government consumption	1.4	2.4	1.6	(0.0)	0.2	0.0
Government GCF (civil works)	(14.9)	(14.8)	18.0	(17.8)	21.2	1.1
Final local demand	4.8	4.3	4.5	1.0	(0.5)	(0.6)
Net external demand	10.6	10.0	16.3	21.9	(0.4)	0.0
Exports	14.6	8.8	3.1	2.4	(0.5)	(0.1)
Imports	13.1	9.3	8.0	9.0	(0.5)	0.1
GDP	4.2	3.7	3.3	(1.0)	(0.6)	(0.6)

Local private demand in the first quarter of 2009, coupled with exports, was the spending component most influenced by the effects of the external crisis, declining at an annual rate of 2.0% during that period. A contraction in private local demand had not been witnessed since the second quarter of 2002. The biggest drop was in private investment (gross capital formation minus investment in civil works), which fell 6.7% in annual terms, if the change in inventory is included. This was largely the result of less investment in transport equipment (22.4% annual) and construction and buildings (14.8% annual). In the case of the latter, the reduction was due more to the effect of a higher base of comparison than to the drop in levels compared to the fourth quarter of 2008.

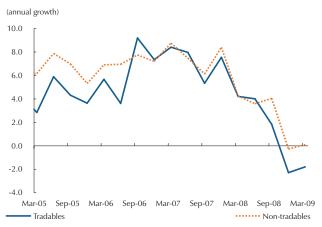
Household consumption, which is the other component of private demand, contracted 0.5% in annual terms and contributed significantly to the decline in GDP, given its predominant weight on aggregate expenditure (66%). Its recent performance reflects the sharp drop in consumer confidence observed in most economies the world over within the context of the crisis global economy. In Colombia, currently deteriorating conditions in the labor market and less growth in peso remittances play a role as well. Together, they can have an impact on available household income.

Private local demand, coupled with exports, was the spending component most influenced by the effects of the external crisis. During the first quarter, exports to the United States, were still those most affected by the crisis. As for net external demand, DANE reported a real annual 0.5% decline in exports for the first quarter of 2009. Moreover, the fourth quarter/2008 export figures were revised downward, lowering annual growth for the quarter from 6.3% to 2.4%. This confirms the slowdown in exports since the second half of 2008, correcting part of the divergence Colombia's foreign trade figures showed with respect to most countries worldwide and proving the impact of the external crisis on the Colombian economy began to be felt chiefly as of late 2008.

During the first quarter, exports to the United States were still those most affected by the crisis, particularly industrial products, since mining exports continued to increase in volume and prevented an even greater reduction in the totals. The momentum in real exports in pesos continued to deteriorate as a result of the trade restrictions imposed by Venezuela and Ecuador. The ones influenced the most by those decisions are also of manufacturing origin, especially automobiles and clothing, and agricultural exports in the case of Ecuador.

On the other hand, the annual contraction in total imports registered during the first quarter was equal in magnitude to that of exports. This decline contrasts with the increase observed in late 2008 (9%) and provides evidence of weaker local demand, predominantly due to the slump in confidence.

Graph 10 Real tradable and non-tradable GDP



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

On the supply side and as expected, tradable GDP has been the most exposed to the external crisis, falling 1.8% in annual terms during the first quarter. Non-tradable GDP was up slightly (0.1%) (Graph 10). The contraction in tradable GDP was associated largely with the drop in industrial production (7.9% in annual terms), which is more closely linked to world trade.

Apart from the international crisis, the trade restrictions imposed by some of Colombia's trading partners also contributed to the decline.

In addition to industry, the other sectors that contributed to the annual reduction in GDP during the first quarter were commerce, building

construction, transport and agriculture, in that order (Table 3). The areas of supply that contributed positively to GDP growth were, in particular, the financial sector, insurance, rentals and other services, with 4.7% annual growth fueled primarily by financial intermediation services (which were up 7.9% in annual terms). Good performance in the mining sector was another highlight. Associated with added production of oil and natural gas, it is the result of investments made in past years.

Table 3
Real annual GDP growth by sector

	l Qtr. 2008	ll Qtr. 2008	III Qtr. 2008	IV Qtr. 2008	l Qtr. 2009	Contribution to I Qtr. 2009 growth
Agriculture, forestry, hunting and fishing	4.0	5.5	2.1	(0.6)	(0.8)	(0.1)
Mining and quarries	4.6	7.9	10.4	6.4	10.6	0.5
Manufacturing industry	2.1	1.2	(2.5)	(7.9)	(7.9)	(1.2)
Electricity, gas and water	0.7	1.7	1.2	1.0	1.9	0.1
Construction	0.4	(0.2)	21.1	(11.3)	4.1	0.2
Buildings	24.9	25.9	25.2	(0.9)	(14.1)	(0.3)
Civil works	(15.1)	(14.8)	18.1	(17.7)	21.2	0.5
Commerce, repairs, restaurants & hotels	2.2	4.0	1.1	(0.6)	(2.7)	(0.4)
Transport, storage & communication	9.0	4.6	2.3	0.4	(2.0)	(0.1)
Financial, insurance, real estate and business service companies		4.9	6.5	3.9	4.7	0.8
Social, community and personal services	3.4	2.9	1.7	0.3	(0.2)	0.0
Sub-total: Aggregate value	4.0	3.6	3.3	(0.9)	(0.2)	(0.2)
Taxes minus subsidies	6.9	5.4	2.6	(1.8)	(4.2)	(0.4)
GDP	4.2	3.7	3.3	(1.0)	(0.6)	(0.6)

#### 2. The Labor Market and Wage Costs

The rise in unemployment is associated with an increase in the labor supply. Job creation has been concentrated in the intermediate urban centers and in the rural area.

The job indicators in the Comprehensive Household Survey (GEIH) show an increase in unemployment so far this year. This is due solely to a sharp increase in the labor supply, since employment ceased to fall as of February 2009 and has grown in recent months. However, job creation has been concentrated in the intermediate metropolitan centers and in the rural area, not in the three major metropolitan areas. This is in keeping with the job destruction reported in the sector surveys for industry and commerce. The loose job market created conditions that resulted in lower wage increases so far this year compared to those in 2008 and, in some cases, lower than the inflation target.

According to the GEIH, the average annual increase in employment during January-May 2009 was 2.1% nationwide and 1.5% in the thirteen metropolitan areas. The recovery in employment since February led to annual increases in the employment rate, indicating that job creation exceeded growth in the working age population. However, probably due to less household income, the economically active population also has grown significantly since February, generating an increase in the global participation rate (GPR) (Graph 11).

Graph 11 Annual variation in the global participation rate (GPR) and total employment nationwide (TE)

(percentage points, moving quarter)

4.0

3.0

2.0

1.0

-1.0

-2.0

-3.0

-4.0

-5.0

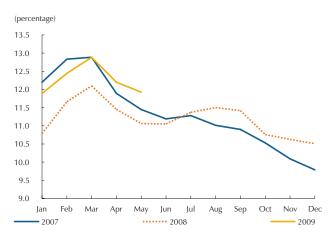
Jan-07 May-07 Sep-07 Jan-08 May-08 Sep-08 Jan-09 May-09

GPR

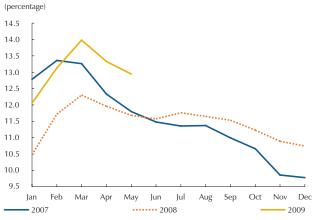
Source: DANE-GEIH.

#### Graph 12

#### A. Total unemployment nationwide (moving quarter)



#### B. Total unemployment-13 areas (moving quarter)



Source: DANE-GEIH.

The increase in the labor supply or GPR exceeded the demand for labor, as measured by the employment rate (Graph 11). The result was higher unemployment (UR). For the moving quarter ended in May, UR nationwide was 11.9% (Graph 12, Panel A), while unemployment in the thirteen areas reached 12.9% (Graph 12, Panel B). The figures at May show annual increases in UR similar to those observed during the first quarter (on the order of 1.0 to 1.5 percentage points [pp]). Consequently, it is possible to argue that the deterioration in working conditions has not become more pronounced.

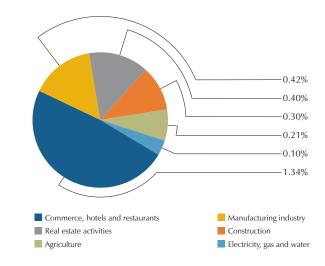
As to job creation, an analysis by geographic domains shows an increase in employment during the course of the year to May, primarily in municipal centers other than the 13 major areas and, to a lesser extent, in the rural area. Similarly, according to the different branches of economic activity, employment was propelled largely by commerce, most notably in the thirteen metropolitan areas (Graph 13). On the contrary, the increase in employment in the three major cities (Bogota, Medellin and Cali) during the course of 2009 to May has been quite limited (0.95%) and is concentrated solely in commerce. In these cities, employment in the manufacturing industry fell 0.21%.

The poor momentum in employment in the major cities is supported by the sector surveys for industry and commerce. The figures at May show employment in those sectors is declining. According to the monthly manufacturing sample (MMM), industrial employment declined at an annual rate of 6.9%, continuing the downward trend initiated last year. In commerce, according to the monthly retail trade sample (MMCM), total employment is down as well, but not as much (3.9%) (Graph 14). It should be noted that these surveys gather information, above all, from the major cities.

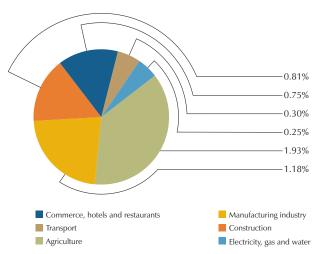
Furthermore, the sector surveys may be collecting information on what is happening with medium-sized and large companies as opposed to small businesses and micro-enterprises, which are under-represented in these samples. In fact, when separating GEIH job creation by company type, the resulting figures are consistent with the job

Graph 13 Positive Contribution to Job Creation in 2009

#### A. Job Creation Nationwide = 2.13%

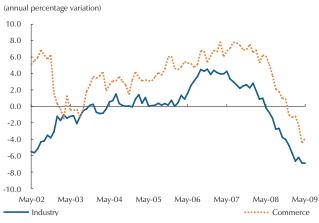


#### C. Job Creation in Other Municipal Areas = 3.57%



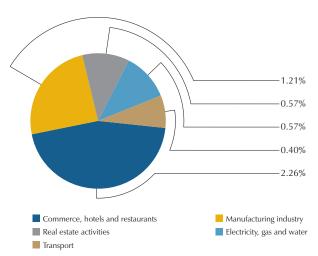
Source: DANE-GEIH; calculations by Banco de la República (Central Bank of Colombia).

Graph 14 Employment in industry and commerce

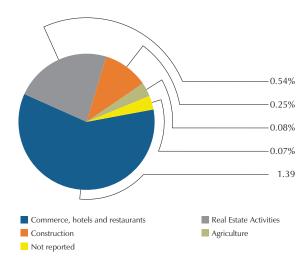


Source: DANE (MMM and MMCM).

#### B. Job Creation in the Rural Area = 1.76%



#### D. Job Creation in the 13 Areas = 1.46%



destruction revealed in the sector surveys, since job creation in companies with more than ten workers was negative in both the national total and for the thirteen areas (Table 4).

Accordingly, it is possible to argue that the least dynamic job market today is the one more closely associated with world trade; in other words, the job market that is part of industry and big business, and is found in the major cities. Therefore, one also can assume that the type of employment that has suffered from the current slowdown is formal and, therefore, employment growth nationwide tends to be concentrated in the informal sectors of the economy.

Table 4 Job Creation: June 2009 versus June 2008

National total	Absolute Variation (thousands of employed persons)	Percentage variation
Total companies	1,446	8.5
Companies with 1 to 10 workers	1,503	12.8
Companies with more than 10 workers	(57)	(1.1)
13 Areas	Absolute Variation (thousands of employed persons)	Percentage variation
Total companies	495	5.9
Companies with 1 to 10 workers	600	12.2
Companies with more than 10 workers	(105)	(3.0)

Source: DANE-GEIH

Graph 15 Nominal Sector Wage Indexes: Industry and Commerce



Source: DANE-GEIH.

Graph 16 Nominal sector wage indexes: heavy construction and housing

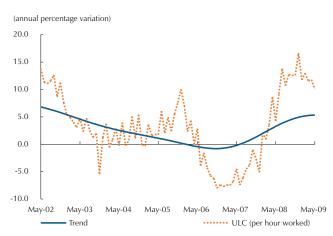


Note: Workers: foreman, manual laborer, craftsman, inspector, surveyor and line worker. Employees: engineer, chief engineer, assistant engineer, warehouseman, accountant, watchman, mechanic and laboratory technician Source: DANE. As for wages, the hikes during the second quarter were low and stable. For industry and commerce, the increase in nominal wages was in the lower part of the target range for inflation. Between April and May, industrial wages were up at an annual rate of 4.6% and wages in commerce increased 4.8%, which is slightly more than during earlier quarters (Graph 15). Wages in the construction sector rose at an annual rate of 6.5%, which is less than in previous quarters (Graph 16).

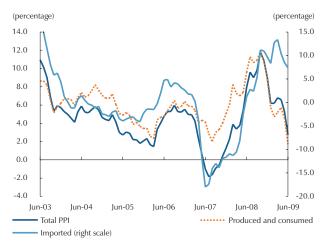
However, although the nominal adjustment in industrial wages was moderate, the ratio of output to the number of hours worked in the sector has fallen sharply in the past year, due to less production. As a result, the nominal unit labor cost (ULC = nominal wage / implied productivity) increased rapidly and, by May, had adjusted at a nominal annual rate of 10.1%. This surely has affected profit margins, since the prices businesses charge were increasing much less (3.9%) in May, according to the producer price index for goods produced and consumed in industry.

Given weak demand, which makes it difficult to adjust prices at a higher rate or to increase production, businessmen have reacted by reducing the number of persons they employ. If demand does not recover within a reasonable period of time, the contraction in employment could continue, barring any further decline in the rate of adjustment in nominal wages (Graph 17).

Graph 17 Real unit labor cost (ULC) in industry

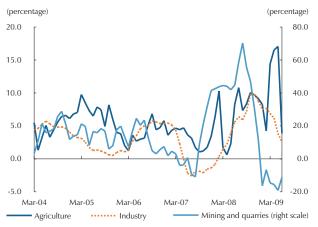


Graph 18 Total PPI and by origin (annual variation)



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

Graph 19 PPI: Produced and consumed, by branches (annual variation)



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

Accordingly, the labor market is loose enough to rule out price pressures from an increase in wages above the target for inflation, at least for the rest of the year. Under the current circumstances, the risk is that job losses will accelerate if demand does not recover quickly.

#### 3. Other Costs

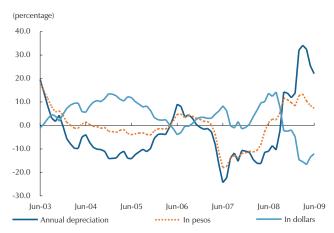
Inflationary pressures stemming from non-wage costs continued to slow in the second quarter of 2009. As illustrated in Graph 18, annual producer inflation during that period fell from 6.6% in April to 2.7% in June. In June, the monthly variation was -0.9%. As to origin, Graph 18 also shows the annual variation in the producer price index (PPI) for produced and consumed goods declined sharply from 5.7% in April to 1.7% in June. The explanation rests mainly with the industrial and agricultural components (Graph 19). As to the imported PPI, its annual variation continued to fall, consistent with peso appreciation, and was 7.4% in June. During the second quarter, prices in dollars declined at a slower rate (Graph 20).

The non-labor cost-weighted indexes were estimated with the PPI figures, using the social accountability matrix (SAM). The indexes confirm that cost pressures have contracted, particularly because of the national component, which posted an annual increase of 3% in March compared to 0.5% in June (Graph 21). Generally speaking, the reduction in non-wage cost pressures is attributed to appreciation in recent months, as well as the drop in international prices for raw materials and fuels. However, internal factors associated with lower prices for a number of agricultural products also played a role, as did weak demand.

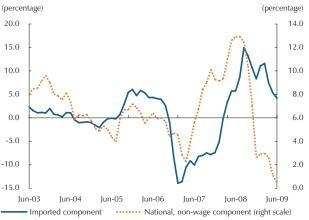
## 4. Surplus Capacity and Demand-pulled Pressure

During the first half of 2009, the rise in demandpulled inflationary pressures was still being curbed by the standstill in economic activity. That situation was accompanied by low utilization of the country's

Graph 20 Imported PPI in pesos and dollars, and annual depreciation

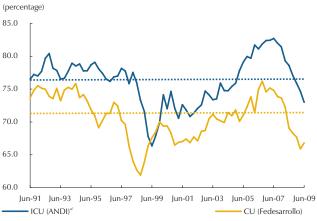


Graph 21 Non-wage cost indexes based on SAM (Annual variation)



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

Graph 22 Installed capacity utilization (ICU) <sup>a/</sup>



Source: ANDI and Fedesarrollo

productive facilities, as has been the case since mid-2008.

The negative trend observed since last year with respect to indicators of installed capacity utilization for industry (ICU), measured by the National Association of Industrialists (ANDI) and Fedesarrollo, became more pronounced during the first half of 2009. In fact, by May and June, both these indicators were well below their historic averages. The Fedesarrollo indicator for the second quarter of 2009 was 65.4% as opposed to a historical average of 71.3%, and 2.3 percentage points (pp) below the average for the same period in 2008. The situation with the ANDI indicator was similar (Graph 22).

As mentioned in earlier sections of this report, low capital utilization is accompanied by a loose job market that results in slow employment growth and an expansion in labour supply, as illustrated by the increased gross rate of participation GRP. The Central Bank's preliminary calculations indicate the unemployment rate now exceeds the non-accelerating inflation rate of unemployment (NAIRU). In other words, the gap in the labor market restricts the appearance of pressures on wage costs and on prices.

Moreover, as mentioned in the previous edition of this report, the Colombian economy experienced several shocks during the latter part of 2008 and the first half of 2009 that would affect both the gap and potential (or non-inflationary) growth. This adds to the uncertainty about how the economy will evolve this year and in 2010.

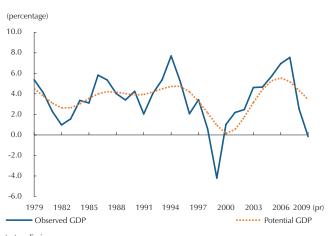
The following should be noted with respect to those shocks:

If extensive, the depth of the international financial crisis may translate into a supply shock to potential world growth. This could result in less external financing, a setback in foreign direct investment and a reduction in capacity of Colombia's export sector to expand, all of which would affect the country's long-term GDP.

During the first half of 2009, the rise in demand-pulled inflationary pressures was still being curbed by the standstill in economic activity.

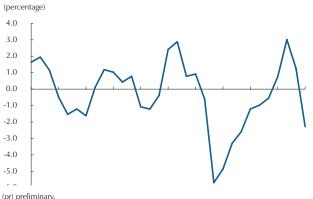
- Weakening domestic demand, as is currently the case, usually is accompanied by a slowdown in potential growth, to the extent that it affects the investment cycle. This may be especially valid after 2010. As for 2009, the high levels of investment in 2008 provide support for noninflationary growth.
- The rise in unemployment would have adverse consequences for the size and the quality of the workforce, depending on the duration and intensity of the economic recession.
- The international trade barriers posed by several of the country's trading partners could affect its economic performance in the years ahead.

Graph 23 Annual GDP growth: observed and potential (annual average)



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

Graph 24 Output gap (annual average)



(pr) prenimiary. Source: Banco de la República (Central Bank of Colombia) Accordingly, the econometric estimates suggest that average growth in potential output for 2009 will be somewhere in the 3.0% to 4.0% range. This is less than what was estimated in the last edition of this report and for 2008 (4.3%) (Graph 23). In other words, the output gap would average -2.3% for all of 2009, given the growth anticipated for this year and noted in the third chapter of this report (Graph 24). It is important to bear in mind that developments in the output gap will depend, in part, on how the crisis in the industrialized economies evolves and the pace of recovery in emerging economies.

#### 5. Inflation Expectations

Inflation expectations have declined considerably so far during 2009. This is consistent with the recent behavior of inflation and with less pressure from demand and costs anticipated by those who play a role in Colombia's economy.

According to the quarterly survey of expectations conducted in early July by the Central Bank of Colombia among a wide range of agents and analysts, inflation is expected to average 4.5% by late 2009, which is equivalent to the floor of the target range set by the BDCB. Moreover, 34.6% of those surveyed expect inflation at the end of 2009 to be within the target range set by the BDCB; during the same month last year, all of those who were surveyed felt the target would not be met. It is important to point out that a

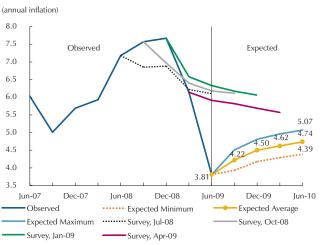
significant group of respondents to the survey believes inflation could end the year below the target range (Graphs 25 and 26).

The Colombian economy experienced several shocks during the latter part of 2008 and the first half of 2009 that would affect both the gap and potential growth.

The monthly expectation survey applied to financial market operators in early July shows downward trends that are even more pronounced. Accordingly, expected inflation for December 2009 is 3.8%, which is below the floor of the BDCB range and 80 bp less than inflation three months ago. In the second quarter, expectations twelve months out were still at around 4.6% (Graph 27).

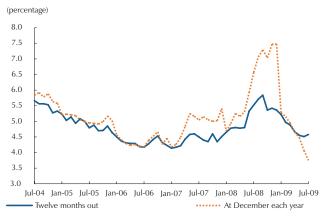
The situation with respect to the inflation expectation indicator derived from TES is similar. In the case of short-term securities, inflation expectations were below the midpoint of the target range for inflation this year. For example, they were 1.6% for TES negotiated at one year. However, for the 10-year TES, the expectations were at 4.1%, which is slightly above the long-term target range announced by the BDCB (between 2% and 4%). This may indicate that financial markets expect inflation to rebound somewhat in the long run, though not to the levels observed in the past (Graph 28).

Graph 25 Observed inflation and inflation expectations (at three, six, nine and twelve months)



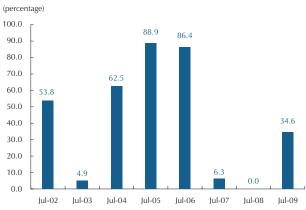
Source: Banco de la República (Central Bank of Colombia).

Graph 27 Inflation Forecasts by banks and Brokerage Firms (annual variation)



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

Graph 26 Percentage of inflation target credibility: 2002 to 2009 (survey conducted each year in July)



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

Graph 28 Indicators of Inflation Expectations Implicit in the TES Market  $^{\mathrm{a}\prime}$ 



a/ Difference between the rates on TES UVR and fixed-rate TES. Source: DANE; calculations by Banco de la República (Central Bank of Colombia).

### II. Financial Markets

**Liquidity conditions have stabilized globally, but** most of the constraints on credit remain in place.

The stock markets recovered some lost ground during the second quarter.

The gains have been greater in the case of emerging economies and were accompanied by an appreciation in the price of their currencies.

In Colombia, the decline in the policy interest rate was passed on quickly to market interest rates, particular those on commercial lending.

The reduction in rates has helped to keep growth in lending above nominal GDP growth.

How lending develops in the future will depend, in part, on how the risk indicators perform.

#### A. EXTERNAL MARKETS

The liquidity conditions in world financial markets continued to improve during the second quarter of 2009, accompanied by some stability in the other financial variables. Economic policy measures, coupled with certain signs that the economic downturn may have bottomed out, are among the reasons that allowed for the momentum in those markets. However, the credit channel in the developed economies has yet to be restored fully and they continue to face substantial risks that are not very different from those identified in the last two editions of this report.

In the first two quarters of 2009, the economic authorities in the developed countries and in several emerging markets continued to pursue liquidity assistance plans for the financial system and began to implement a variety of fiscal programs designed to soften the economic downturn and to stabilize the markets. In the monetary field, most central banks in the developed economies

The liquidity conditions in the world's financial markets continued to improve during the second quarter of 2009, accompanied by some stability in the other financial variables.

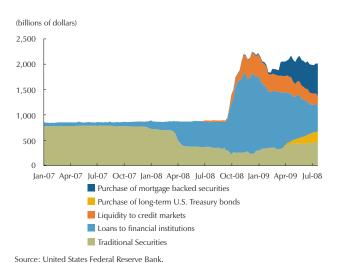
In the monetary field, most central banks in the developed economies kept their benchmark interest rates at levels near zero, while the emerging countries made sizeable cuts. kept their benchmark interest rates at levels near zero, while the emerging countries made sizeable cuts, taking their benchmark rates to historically low levels (Table 5).

Table 5 Central Bank Benchmark Rates

	Current Level	Last Change	Change since Sep-08
United States	(0 - 0.25)	16 Dec 08 (-87.5 pb)	(188)
Euro Zone	1.00	7 May 09 (-25 pb)	(325)
United Kingdom	0.50	5 Mar 09 (-50 pb)	(450)
Czech Republic	1.50	7 May 09 (-25 pb)	(200)
Japan	0.10	19 Dec 08 (-20 pb)	(40)
Brazil	8.75	22 Jul 09 (-50 pb)	(500)
Mexico	4.50	17 Jul 09 (-25 pb)	(375)
Chile	0.50	9 Jul 09 (-25 pb)	(775)
Colombia	4.50	19 Jun 09 (-50 pb)	(550)
Peru	2.00	9 Jul 09 (-100 pb)	(450)
Turkey	8.25	16 Jul 09 (-50 pb)	(850)
China	5.31	22 Dec 08 (-27 pb)	(216)
New Zealand	2.50	30 Apr 09 (-50 pb)	(550)
Australia	3.00	7 Apr 09 (-25 pb)	(400)
India	4.75	21 Apr 09 (-25 pb)	(425)
South Africa	7.50	28 May 09 (-100 pb)	(450)

Sources: Central Banks, Bloomberg and JP Morgan.

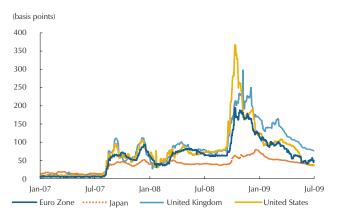
Graph 29 U.S. Federal Reserve Assets



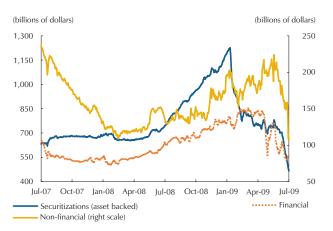
In the case of the United States and other developed economies, near-zero rates have deprived the traditional monetary strategy of maneuvering room and obliged the authorities to adopt unconventional policies. The United States Federal Reserve Bank (the Fed) is the most illustrative example. It has begun to act by expanding and restructuring its balance sheet, particularly through asset purchase programs aimed at facilitating liquidity to the system. As part of that strategy, the Fed substantially expanded its purchase of long-term government bonds during the second quarter<sup>2</sup> (Graph 29). The Bank of England is carrying out a similar program. In addition to expanding liquidity and trying to stabilize financial markets, the authorities also attempted to keep intermediate and long-term rates low and to restore the credit channel.

In March, the Fed announced it would purchase US\$300 billion (b) in long-term government bonds. Approximately US\$220 b have been purchased to date.

Graph 30 Interbank market rate differentials: libor versus OIS at three months

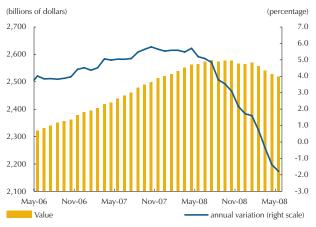


Graph 31 Outstanding commercial paper in circulation in the United States, by type of issuer <sup>a/</sup>



a/ seasonally adjusted series. Source: United States Federal Reserve Bank.

Graph 32 Total consumer lending in the United States



Source: United States Federal Reserve Bank.

The policies implemented so far have had an important impact on liquidity conditions in the interbank markets. In fact, the indicators of short-term liquidity risk that measure interest rate differentials such as the TED spread or the Libor-OIS spread<sup>3</sup> show significant declines. Nevertheless, they are still higher than those observed prior to September 2008, when the crisis deepened (Graph 30). This suggests there still is a bit of uncertainty about the availability of liquidity in the system.

The results on the re-establishment of lending conditions are less clear. Although the restrictions on lending have declined during the course of 2009, a number of surveys show the standards are still quite high. Moreover, the demand for consumer lending and commercial loans is weak. As a result, the amount of credit entering the economy in the developed countries was down again in recent months. In the United States, there have been significant reductions in amount oustanding of commercial paper so far this year, in addition to those observed in 2008. Meanwhile, bank lending posted sizeable declines, particularly for consumption (Graphs 31 and 32). The deterioration in the job market, the loss of wealth, and the high levels of household borrowing and leveraging by financial institutions could continue to complicate the recovery in lending during the months ahead.

In this environment, there still are concerns about the health of the financial systems in the developed countries, particularly the solvency of financial institutions and how they might deal with a scenario where the economy is recovering very slowly or

The TED spread is the difference between the interest rates on interbank lending (Libor) and the short-term U.S. government debt, known as T-bills. Since T-bills are considered risk-free, an increase in the TED spreads is a sign that lenders believe the risk of default on interbank loans is increasing. The Libor-OIS spread is the difference between the interest rates on interbank lending (Libor) and an overnight index swap (OIS). An OIS is a fixed/floating interest rate swap, with the floating leg tied to a published index of a daily overnight rate reference (in the United States it is the effective rate on federal funds). The OIS rate is the best measure of investors' expectations for the rate on federal funds (target of the Fed's monetary policy). The differential between the Libor and the OIS shows the gap anticipated by the market between the market benchmark rate and the cost of interbank borrowing during the term of the swap.

The deterioration in the job market, the loss of wealth, and the high levels of household borrowing and leveraging by financial institutions could continue to complicate the recovery in lending during the months ahead.

remains stagnant for a long time and at low levels. However, several stress-tests designed to evaluate the solvency of financial institutions and their capacity for resistance in the face of changes in the economic outlook, showed favorable results, at least in the case of the United States.<sup>4</sup> According to those tests, the capital needs of many institutions in the United States are less thanthose expected by the market. Furthermore, several of them managed to fulfill many of the capital requirements or to restructure existing capital instruments by the time the results of the tests were published.

In the European case, the situation of the financial system may be more complex, partly because of the relationships that exist with financial institutions in Eastern Europea. The Eastern European countries now face a collapse in production and exports that is far greater than in other emerging economies. It is important to point out that much the funding for the investment projects and the portfolio of these economies comes from large Western European banks.<sup>5</sup>

The efforts of authorities to stabilize the financial markets, coupled with positive information from the stress tests in the United States and some encouraging news on real economic activity, made investors more willing to assume risk and to put new resources into the stock market, taking advantage of the low levels securities were at during the first quarter of the year. This allowed for a recovery in stock market indexes as of late February and through July, although the levels remained well below those observed prior to September of last year (Graph 33).

The stock valuations implied some portfolio restructuring against safer assets such as the government bonds of developed economies, which tended to devaluate, causing long-term interest rates to rise. These increases also are related to the large growth in government borrowing during recent months, which could test the market's capacity for new issues. Moreover, there are growing concerns about possible intermediate and long-term inflationary pressures due to the Fed's expansionist policies.

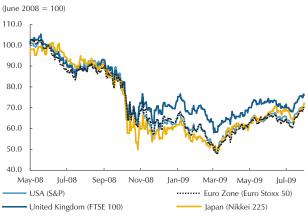
The efforts of authorities to stabilize the financial markets, coupled with positive information from the stress tests in the United States and some encouraging news on real economic activity, made investors more willing to assume risk. This allowed for some recovery in stock market indexes.

In the United States, these sensitivity exercises, known as the Supervisory Capital Assessment Program (SCAP), were done by the Fed. The program concluded that 10 of the 19 financial institutions assessed needed to increase their capitalization level. The total amount required was estimated at U.S. \$ 185 billion. By the time the results were published (May 7), the institutions in question had raised about U.S. \$ 110 billion and, during the last two months, they were able to secure the remaining amount through shares and unsecured debt issue.

Sweden was among the first to perform stress tests to determine its exposure to loans with Eastern European countries, particularly the Baltic countries. According to the country's latest financial stability report, total lending by Swedish banks to the Baltic countries at the end of first quarter of 2009 came to 483 billion kronor (about U.S. \$ 60 billion). This amounts to 7% of all loans in the Swedish banking system. The losses incurred between the last quarter of 2008 and the first quarter of 2009 came to \$ 20 billion kronor, which is a high amount compared to 2 billion kronor in losses during the same period a year ago. About 40% of those losses were loans to the Baltic countries.

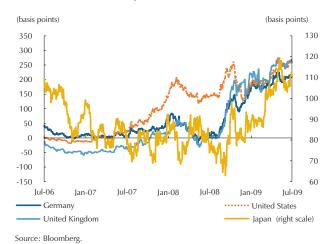
Given the improvement in economic prospects and the strong monetary injection, some analysts argue that traders expect higher inflation in the future and the increase in interest rates could be a sign of this. Therefore, traders have stopped worrying about fears of deflation.

Graph 33 Stock market indexes of several developed economies <sup>a/</sup>

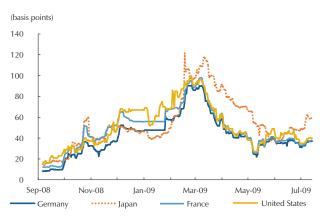


a/ Data at July 31, 2009 Source: Bloomberg.

Graph 34 Differential between 10 and 2-year rates on government bonds of several developed economies



Graph 35 Credit default swaps (CDS) of several developed economies  $^{\rm a/\,b/}$ 



a/ The CDS of Germany, Japan and France are related to the dollar; those of the United States are associated with the euro. b/Data at July 14, 2009

Source: Bloomberg.

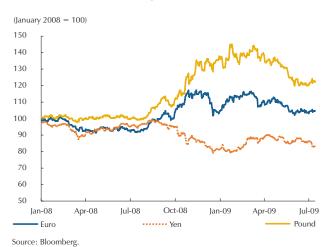
As a result of the foregoing, the bond yield curve steepening during the second quarter, with the differential between the rates on government bonds at two and ten years growing wider (Graph 34). However, the risk premiums on the sovereign debt of the developed countries, measured by credit default swaps (CDS), have declined substantially in recent months compared to the levels in March, but remain high given what was observed prior to September of last year (Graph 35). During this last period, the U.S. dollar lost ground against other hard currencies such as the euro and the pound, but recovered slightly and stabilized in mid-June (Graph 36).

In the emerging economies, the situation for financial markets is not uniform. As mentioned, the Eastern European countries pose the most complicated case, especially the Baltic states, where risk premiums remained at extremely high levels during the second quarter, due to large macroeconomic imbalances and the vulnerability of the financial systems in those countries (see Chapter III).

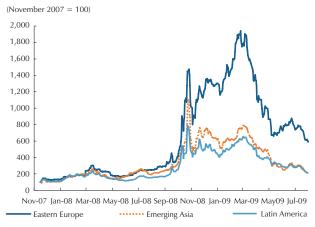
The situation is more favorable for the emerging markets in Asia and Latin America, as illustrated in the next chapter, despite the persistence of negative signals from the productive sector. Since March, the rally in commodity prices may have helped to generate greater confidence among investors, especially with respect to Latin America. The fact that their financial systems have suffered only limited contagion in the international crisis also points in that direction, as does the strength of China's domestic demand (see Box 1). This was reflected in lower risk premiums in the recent months compared to the first quarter (Graph 37).

Given this environment, the stock markets of the emerging countries, which depreciated sharply up until the end of February, experienced a strong recovery in response to the increased appetite for variable-income instruments the world over. The earnings observed during that period for the Asian stock market indexes are between 45% and 55%; those for Latin America are between 35% and 45% (Graphs 38 and 39). Particularly striking is the

Graph 36 Performance of the dollar against other hard currencies

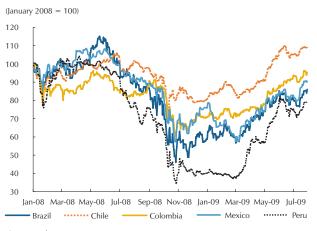


Graph 37 Credit default swaps (CDS) in emerging economies



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

Graph 38 Stock market indexes in Latin America <sup>at</sup>

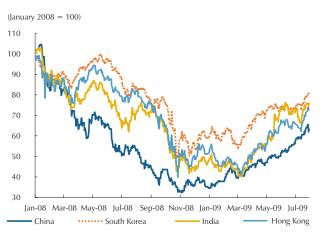


a/ Data at July 30, 2009 Source: Bloomberg. growth of stocks in China: around 88% so far this year. In the case of Latin America, the stock market indices of countries such as Chile and Colombia have recovered a good portion of the losses incurred during the second half of 2008.

The exchange market has seen a generalized tendency for the currencies of the emerging countries to appreciate against the dollar, particularly during April and May, before stabilizing in June. As for the countries in the region, appreciation was more pronounced in Brazil, Chile and Colombia. The Colombian peso, in particular, has appreciated by about 23% compared to the level registered at the start of April, and 8% last month (Graph 40).

In short, the policies implemented so far this year by the monetary authorities in the developed economies have allowed liquidity conditions to improve, along with risk perception, but their impact on reactivating access to credit is less clear. In recent months, the markets have shown concern about the effects of the massive fiscal and monetary interventions, sparking a rise in interest rates on long-term sovereign debt securities. At present, one risk on the financial front is that the stock markets of the developed economies might suffer a major correction in the months ahead, possibly for having overreacted with excessive optimism to some of the favorable news.

Graph 39 Stock market indexes in Asia <sup>a/</sup>



a/ Data at July 30, 2009 Source: Bloomberg.

Graph 40 Exchange Rate Indexes in Latin America <sup>a/</sup>



Source: Bloomberg.

During the second quarter of 2009, the BDCB continued its monetary stimulus policy and gradually lowered the benchmark interest rate by 250 bp.

Proper levels of loanloss provisioning and capital for financial intermediaries, coupled with the positive effects of monetary policy, have allowed the Colombian financial system to remain strong.

#### B. INTERNAL FINANCIAL MARKETS

During the second quarter of 2009, the BDCB continued its monetary stimulus policy and gradually lowered the benchmark interest rate by 250 bp to 4.5% in June of this year, rounding out 550 bp in cuts since last December.

The interbank and deposit markets reflect the change in monetary stance, with interest rates reductions similar to the policy rate cuts. In the loan market, the decline in commercial, treasury and preferential rates exceeded the intervention rate cuts. Interest rates charged to households have declined as well, but less so.

All of this helped to push real interest rates to historically low levels. In June, excluding non-food inflation, the interest rates on one-day repos, the DTF and the average lending rate stood at 0.6%, 1.2% and 8.0% respectively.

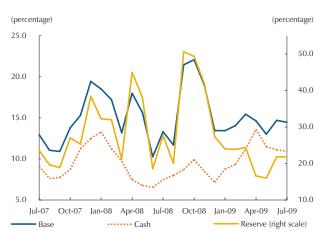
Despite low interest rates on the different types of savings, the demand for financial system deposits (liabilities subject to reserve requirements: LSR) is still growing at a good pace, similar to the annual rates posted during the last three years. As a result, intermediation potential, measured as the annual rate of change in M3 (cash plus LSR), continues to increase far more than the nominal GDP.

The reduced cost of resources for doing business also helped to maintain the momentum in commercial lending in domestic currency and to mitigate the rapid slowdown in the consumer loan portfolio. As a result, annual growth in the gross loan portfolio in domestic currency has been above 15%. The annual decline foreign currency lending by national banks exceeded 40% by June, partly due to the substitution of external credit for local borrowing. However, the extent of external financing for the private sector from other lending sources (international suppliers, other foreign banks, etc.) has remained relatively stable and helped to keep the decline in total aggregate external lending to the private sector at no more than 3.5% in June.

Proper levels of loan-loss provisioning and capital for financial intermediaries, coupled with the positive monetary policy effects mentioned earlier, have allowed the Colombian financial system to remain strong. Consequently, it has been better equipped to deal with the portfolio downturn witnessed in recent months.

Deposit-taking by the financial system during the third quarter, above all in July and August, will benefit from the resources released by the Treasury Department to cover approximately COP\$ 6 trillion [t] in TES maturities.

Graph 41 Base money by use (annual variation in the monthly average)



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

#### 1. Monetary Aggregates

There has been no definite trend in base money so far this year (Graph 41). In June, the average annual increase in base money was 14.7%, which is less than in March (15.5%) but higher than the rate in December (13.5%). However, the growth in base money so far this year has shown less volatility.<sup>7</sup>

During the second quarter, the pattern in base money was determined largely by the changing demand for bank reserves, which has been affected by two opposing factors: the lower reserve requirement established by the BDCB<sup>8</sup> as of December 2008 and the shift towards sight deposits, for which a higher percentage of reserve must be calculated. This being the case, the annual increase in bank reserves by June was 21.9% (Graph 41).

The demand for cash, the other component of the monetary base, was up 11.1% in June, slowing for the third month in a row.

The Central Bank of Colombia responded to the increased demand for base money during the quarter by increasing the repo expansion quotas for liquidity. In addition to compensating for the monetary contraction generated by more government deposits with the Central Bank, these daily quotas also took into account the expansionary effects of fewer non-interest bearing reserve deposits and the intervention in the exchange market (Table 6).

At the end of first half of 2009, the broad monetary aggregate (M3) continued to exhibit solid growth (16.4% annually). This momentum is explained by the behavior of LSR, which account for 88% of the aggregate and posted an annual increase of 17.1% by June.

In real terms, the annual variation in LSR is equivalent to the average for the last three years (12.3%). This indicates that the banking system continues to expand its capacity for intermediation, as it did in 2006 and 2007 when economic activity showed the best results for the decade (Graph 42, panels A and B).

The second quarter of 2009 witnessed an important change in the composition of LSR. During that period, time deposits lost ground to savings deposits and

<sup>7</sup> The coefficient of variation for the first half of 2009 was 7.5% as opposed to 30.5% late last year.

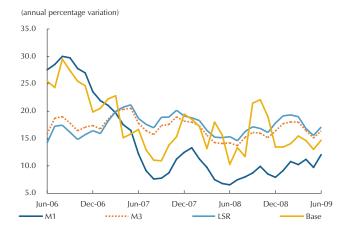
Through External Resolution 011/2008, the BDCB reduced the reserve requirement for sight deposits from 11.5% to 11% and from 6% to 4.5% for time deposits.

Table 6 Base money sources (quarterly variation) (billions of pesos)

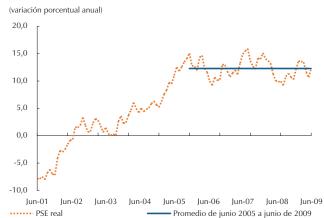
		2009	
	Mar.	Jun.	JanJun.
I. Government a/	(3,945)	(4,784)	(8,729)
Deposits with the Banco de la República	(3,945)	(4,784)	(8,729)
II. TES regulation	(501)	(20)	(520)
Definitive sales	(499)	0	(499)
	, ,	Ü	, ,
Maturity	(1)	(20)	(21)
III. Central Bank liquidity transactions	1,698	5,438	7,137
Repo <sup>b/</sup>	1,194	4,484	5,678
Reverse repo	505	954	1,459
IV. Foreign Exchange <sup>⊄</sup>	(460)	369	(90)
Put options to control volatility	429	369	798
Call options to control volatility	(888)	0	(888)
V. Others <sup>d/</sup>	242	190	432
Total variation in base money	(2,965)	1,194	(1,771)
Balance of base money	33,228	34,422	34,422

Graph 42

## Monetary aggregates and deposits (LSR) (monthly average)



#### Real LSR a/ with non-food CPI В. (monthly average)



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

a/ Government profits were drawn in dollars on February 27, 2009 (US\$320.4 b; that is, COP \$818.6 b). This operation has no monetary impact, as it is a transfer of funds from foreign accounts belonging to the Central Bank of Colombia. b/ Includes one-day, overnight and intermediate-term repos. c/ Does not include transactions with international organizations. d/ Primarily includes the monetary effect of the Central Bank's income statement, as well as the monetary effect of external borrowing and portfolio deposits.

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

The Central Bank of Colombia responded to increased demand for base money during the quarter by increasing the repo expansion quotas for liquidity.

current accounts. The latter accounted for 96% of the increase in LSR during the second quarter, as opposed to 23% in the first three months of the year.

The financial system is expected to have an important supply of resources during the third quarter of 2009, particularly in July and August, due to the additional liquidity generated by the TES that are scheduled to fall due during that period.

#### 2. Lending

The financial institutions had COP \$5.8 t in available funds during the second quarter of the year, COP\$5 t of which (88%) was used for lending. This contrasts with the first quarter when investments were the main reason for the change in the system's consolidated assets (Table 7).

Table 7 Main Balance Sheet Accounts of Credit Institutions at billions of pesos

	Balance at	Quarterly variations		Balance at	
ltem	Dec-08	I Qtr.	II Qtr.	Jun-09	
Assets	162,151	3,432	5,780	171,364	
1. Own cash position b/	1,518	1,139	1,306	3,964	
2. Bankers' reserves	12,832	(1,264)	(100)	11,469	
3. Interest-bearing deposits with the Banco de la República	956	172	(1,033)	95	
4. Gross portfolio with leasing D/C	139,460	(642)	5.082	143,900	
Traditional lending	126,926	(849)	4,960	131,037	
Financial leasing	12,534	207	123	12,863	
5. Investments	37,848	4,967	1,518	44,333	
6. Other net assets Liabilities	(30,463)	(940)	(993)	(32,396)	
Pasivo	162,151	3,432	5,780	171,364	
1. Banco de la República repos	1,908	(79)	3,231	5,060	
2. LSR with fiduciaries	160,243	3,511	2,549	166,304	
LSR without fiduciaries	155,888	2,848	2,235	160,972	
Fiduciaries	4,355	663	314	5,332	
Expansion OMT (open market transactions c/	1,921	7	3,324	5,251	
Interest-bearing deposits with the Banco de la República <sup>d</sup>	1,193	106	(1,112)	187	

a/ Does not include FEN (Financiera Energética Nacional). b/ Does not include brokerage firms. The absolute variations pertain to the variations in dollars multiplied by the average exchange rate

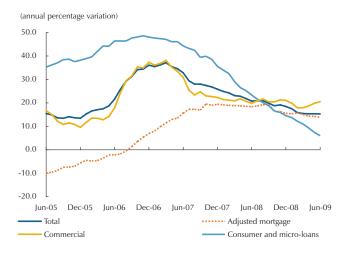
c/Includes fiduciaries, brokerage firms, insurance companies, pension and severance-pay funds and other financial managers that have deposit accounts with the Central Bank of Colombia. Includes reverse repo window deposits.

Note: The fiduciaries pertain to bank collection services.

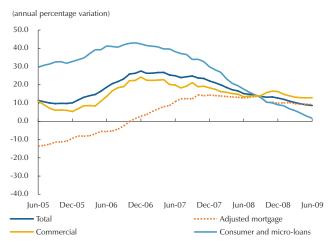
Source: Office of the Superintendent of Financial Institutions; calculations by Banco de la República (Central Bank of Colombia).

#### Graph 43

## A . Gross Portfolio with leasing in domestic currency, average monthly figures



#### B. Real growth by portfolio type <sup>a/</sup>



a/ Non-food CPI deflated.
Source: Office of the Superintendent of Financial Institutions; calculations by Banco de la República (Central Bank of Colombia).

By June, the gross loan portfolio in domestic currency was up 15.3%, which is similar to the growth rate posted in March 2009 (Graph 43, Panel A). Nevertheless, performance by loan type has not been uniform. In particular, the increase in the gross commercial loan portfolio<sup>9</sup> (20.5%) offset the downward trend in aggregate consumer and micro-lending (6.0%). Growth in the mortgage loan portfolio, adjusted to securitization, <sup>10</sup> also experienced somewhat of a slowdown during the second quarter, having gone from 15% to 13.8% (Graph 43, Panel A).

The commercial loan portfolio is up 13.0% in real terms. The mortgage loan portfolio increased 9,2%, while the consumer and micro-loan aggregate posted 1.6% real growth (Graph 43, Panel B).

The commercial loan portfolio has been led by disbursements on preferential, ordinary and treasury loans, which experienced respective average annual increases of 60.4%, 26.4% and 9.8% in the second quarter. The average annual decline in resources earmarked for home builders was 16.4% during the same period.

Durable goods financing accounted for the bulk of the decline in consumer lending, having posted an 11.3% average annual reduction in disbursements during the second quarter. Credit card lending was up 6.7% on average during the same period.

The actual differences in the growth rates for the various categories may be directly related to the

increase in risk. The default rate for the consumer portfolio in May came to 8.35%, and the percentage of the portfolio at risk (other than A-rated<sup>11</sup>) reached 13.3% (Graph 44, panels A and B).

Comparatively speaking, the same indicators for the mortgage and commercial loan portfolios have been less and with a more recent declines. In May, the default rate was 4.8% for mortgage loans and 2.9% for commercial loans. The risky

The commercial loan portfolio is up 13.0% in real terms. The mortgage loan portfolio increased 9.2%, while the consumer and microloan aggregate posted 1.6% real growth.

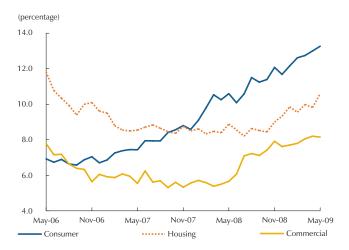
<sup>9</sup> It is important to bear in mind that the first tranche (COP\$1.7 t) of a syndicated loan approved for COP\$2.2 t was disbursed to Ecopetrol at the end of May.

Mortgage securitizations are added to the portfolio.

<sup>11</sup> The range goes from less risk to more risk; that is, B, C, D, E and F.

Graph 44 Non-performing and risky portfolio, by type of lending

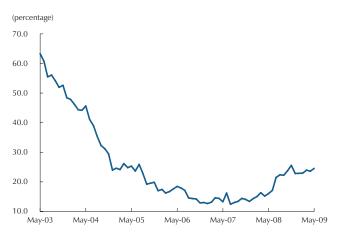
#### A. Risky portfolio



#### B. Default rate



#### C. Risky portfolio without equity provisions



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

portfolio for both these types of lending amounted to 10.6% and 8.1% respectively (Graph 44, panels A and B).

All types of lending have seen an increase in default rates and the share of the portfolio at risk. In May, these indicators for the total loan portfolio were up to 4.8% and 9.85%, respectively.

Despite higher lending risk levels, the financial system has an adequate capital adequacy ratio, <sup>12</sup> which has been around 25% since November 2008. This is the result of the efforts of institutions in the system to increase provisioning and the capitalization of earnings (Graph 44, panel C).

Lending in foreign currency by local banks remained on a downward course, with respective reductions of US\$538 m and US\$ 639 m in the first and second quarters of this year. The six-month cumulative figure shows a decline of 35.9%, which is equivalent to a 42.5% annual reduction. Nevertheless, by May, the aggregate external debt of the private sector was down by just 3.5% in annual terms, mainly because this sector uses other forms of funding (Graph 45).<sup>13</sup>

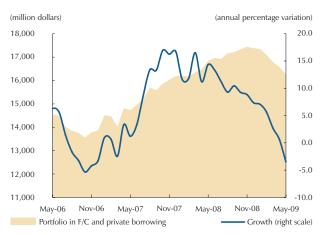
#### 3. Interest Rates

At its meetings on April 30 and May 29, the BDCB agreed to lower the repo rate by 100 bp on each occasion. Later, on June 19, it sliced an additional 50 bp from the policy rate, accumulating -250 bp in cuts during the quarter. At a subsequent meeting on June 19, the BDCB announced it expected to make no further rate cuts in the near future, given the state of inflation at the time. At a meeting on July 24,

<sup>12</sup> The financial system's solvency is measured as the ratio of the risky portfolio to equity provisions.

For example, international sources such as loans from suppliers, leasing operations and the placement of long-term securities in foreign currency. The information available at May shows a decline of US\$35 m in these sources of external financing for the private sector in Colombia. This is a marginal amount considering a balance of US\$13.851 b. During that same month, the outstanding portfolio in foreign currency from resident banks in Colombia came to just US\$2.348 b.

Graph 45 Aggregate portfolio in F/C and non-financial private sector borrowing



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

the BDCB decided, by a majority vote, to hold the interest rate at 4.5%.

The reduction in the policy rate was passed on quickly to interest rates in the interbank market, to those on term deposits and, above all, to the cost of commercial lending. The impact on interest rates for household loans has been slower.

The second quarter saw a 250 bp decline in the interbank rate and the bank benchmark indicator, a 226 bp cut in the rate on CDs, and a 122 bp decline in the interest rate on savings deposits. As for commercial lending rates, the reductions came to 379 bp for treasury loans, 341 bp for ordinary loans, 298 bp for preferential loans and 221 bp for loans to homebuilders.

The response in terms of household loans was less than the policy rate cuts. During the second quarter, the reductions came to 173 bp on lending for durable goods consumption, 139 bp on mortgage loans and 43 bp on credit card lending (Table 8).

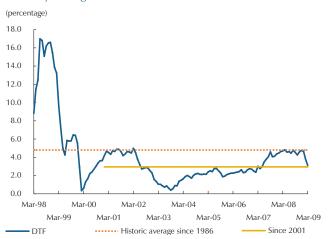
Table 8 Nominal interest rates (average weekly data)

	Dec. 19/08	Mar. 27/09	Jun. 26/09	Variation (	pasis points)
	Dec. 15/00	'	Juli. 20/03		Accumulated
		(percentage)		Quarterly	Accumulated
Mercado interbank market					
Policy rate	10.0	7.0	4.5	(250)	(550)
TIB	9.3	7.0	4.5	(250)	(479)
IBR a/	9.1	7.0	4.5	(250)	(460)
Deposit Market					
Total CDs	10.7	8.0	5.7	(226)	(496)
Corporate CDs	11.2	8.2	5.7	(252)	(551)
Office CDs	9.8	7.6	5.7	(193)	(406)
DTF	10.2	8.1	5.5	(259)	(465)
Savings deposits	5.0	4.4	3.2	(122)	(177)
Loan Market					
Commercial loan portfolio					
Ordinary loans	17.8	16.3	12.8	(341)	(490)
Preferred loans	16.0	12.8	9.8	(298)	(618)
Treasury loans	15.8	13.3	9.5	(379)	(630)
Homebuilders' loans	16.8	15.1	12.9	(221)	(396)
Household loans					
Mortgage loans	17.3	16.3	14.9	(139)	(238)
Consumer loans	25.5	25.5	23.7	(173)	(181)
Credit card lending	31.0	30.2	29.8	(43)	(123)

a/ Bank benchmark indicator

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

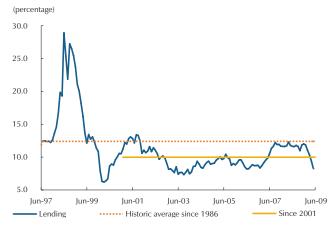
Graph 46 Real DTF <sup>a/</sup>, (Monthly average)



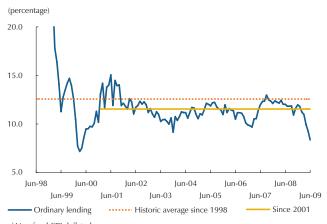
a/ Non-food CPI deflated.
Source: Office of the Superintendent of Financial Institutions; calculations by Banco de la República (Central Bank of Colombia).

#### Graph 47

#### A. Interest rate on lending a/, monthly average



## B. Real interest rate on ordinary lending <sup>a/</sup>, monthly average



a/ Non-food CPI deflated.
Source: Office of the Superintendent of Financial Institutions; calculations by Banco de la República (Central Bank of Colombia).

The decline in nominal rates has exceeded the decline in inflation and, for that reason, there have been important reductions in real terms. When discounting non-food CPI from the policy rate, the outcome at June was 0.57%, a real minimum not seen since 2003. The real DTF was 1.2%, which is less than any level recorded since 2003 and below its historic average<sup>14</sup> (Graph 46).

The real lending rate, calculated according to the method used by the Central Bank of Colombia,15 was 7.98%, which is less than its historic average16 (Graph 47, panel A). The real rate on ordinary loans was 8.37%; that is, 318 bp less than its historic average since 2001 (Graph 47, panel B). As for real lending rates, they were close to the averages calculated since 2001: consumer 19.18% (average: 19.51%), preferred 5.56% (average: 6.44%) and treasury 5.17% (average: 5.42%).

#### 4. Other Financial Assets

The stock market valuated sharply during the second quarter of 2009. At the close of June, the Colombian Stock Market Index (IGBC) was at 9,880 points, with a quarterly increase of 23.1%. This is similar to the trend in the results for the world's major stock markets and those of the region (Graph 48, panel A).

A number of internal factors had a favorable impact on the value of financial assets. They include the reduction in interest rates, the similar response in interest on deposits, and temporary factors such as maturing TES and the subsequent increase in resources in the financial market, a portion of which were channeled into the stock market.

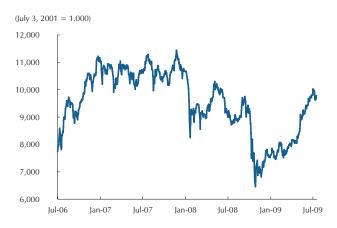
<sup>14</sup> The historic averages for the real DTF are 4.85% and 2.95%, depending whether the calculation includes monthly data as of 1986 or 2001.

<sup>15</sup> The lending rate weighted to include the commercial loan portfolio rates (except the rate for homebuilders) and consumer loans.

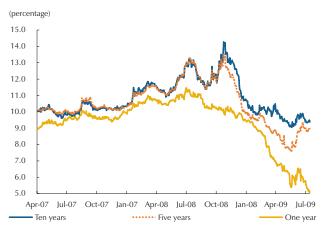
The historic averages for the real lending rate are 12.39% and 9.99%, depending on whether they are calculated as of 1986 or 2001.

#### Graph 48

#### A. IGBC (Colombian Stock Market Index) a/



#### B. Zero Coupon Interest Rates



a/ Data at July 16, 2009 b/ Data at July 15, 2009 Source: Colombian Stock Market; calculations by Banco de la República (Central Bank The government bond market has experienced a great deal of valuation, coupled with an increase in the slope of the yield curve. The one-year rate was 5.75% at the end of June, with a 325 bp spread compared to 5-year bonds (rate of 9%) and 378 bp in relation to 10-year bonds (rate of 9.38%). By March, these differences were 190 bp and 317 bp, respectively (Graph 48, panel B).

As noted in the July 2009 edition of the Report to Congress, the valuation in government bonds and the increased preference for short-term securities is due primarily to international preference for liquidity and less risk, the government's announcement of future TES issues, and the sharp cut in the policy rate as of 2008.

# III. MACROECONOMIC PERSPECTIVES

The world economy and particularly the United States economy should experience some recovery during the second half of the year. However, growth is expected to remain below its potential for several quarters.

The risks weighing on reactivation worldwide remain high, given the plunge in employment and high household borrowing, particularly in the developed countries.

The Colombian economy should recover on par with the world economy. This report contains no changes in the GDP forecasts for 2009.

**Inflation likely will end the year below 4% and continue throughout** 2010 at levels that are compatible with the long-term targets.

#### A. THE INTERNATIONAL CONTEXT

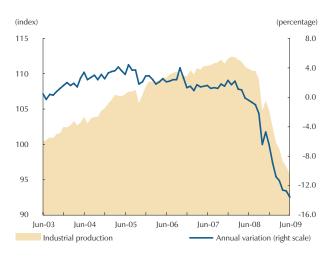
The world economy continued to contract during the second quarter, as anticipated in earlier editions of this report. With the data at June, most of the real economic indicators for the industrialized economies and some emerging markets continued to decline, although not as quickly as during the last two quarters. These dynamics, coupled with the rebound in several confidence indicators, suggest the setback in economic activity will end soon. However, it is difficult to determine the duration and intensity of the recovery.

In the developed economies, industrial activity and commerce (internal and external) suffered serious deterioration during the last few quarters. The contractions have been profound and unprecedented in numerous decades, but their pace has slowed in recent months (Graph 49).

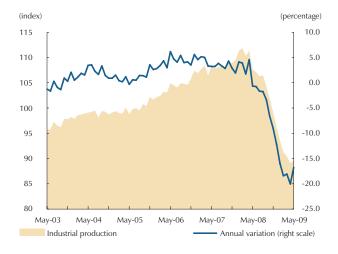
With the data at June, most of the real economic indicators for the industrialized economies and some emerging markets continued to decline, although not as quickly as during the last two quarters.

Graph 49 Industrial Production in Several Developed Economies

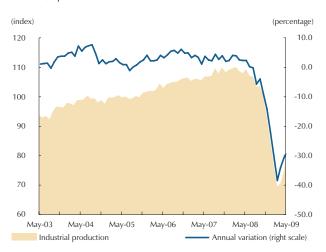
#### A. United States



#### B. Euro Zone







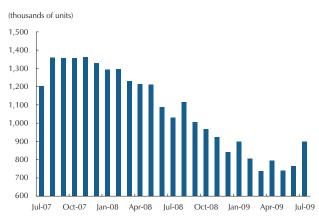
Source: Bloomberg.

In the United States, industrial production during June posted an annual decline of 13%. A slight rebound was observed in the Euro Area and Japan, but the levels are extremely low, with respective annual reductions of around 16% and 29%. As to foreign trade, the decline in exports during May (nominal in dollars) was around 20% for the United States and 25% for the largest countries in the Euro Area. The most critical situation was in the Japanese economy, with a 37% annual drop in exports by May.

As for internal commerce, there appears to have been some stabilization in U.S. retail sales during the second quarter, while Japan has seen a slight rebound since April. Automobile sales were a high point in the U.S. economy, having improved at the end of the second quarter of the year (Graph 50). Most of the momentum in that sector stems from the government's vehicle renewal program.<sup>17</sup>

Gross domestic product (GDP) in the developed countries continued to suffer from the setbacks in industry and commerce witnessed during recent months. The preliminary figures for the second quarter show a 1.0% annualized quarterly

Graph 50 Vehicle sales in the United States



Note: Seasonally adjusted series Source: Bloomberg; calculations by Banco de la República (Central Bank of Colombia)

The Car Allowance Rebate System (CARS), whereby the government provides subsidies to replace old vehicles with new ones, initially had US\$1 billion in funding, which was used in July and spurred the purchase of approximately 250,000 automobiles. The U.S. Senate now is debating the approval of an additional US\$2 billion to extend the program for several more months.

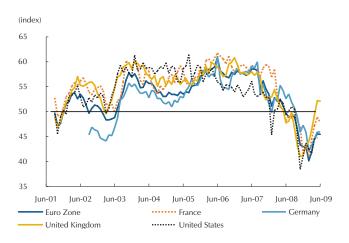
Graph 51 GDP of several developed economies

(annual percentage variation) 2.0 0.0 -2.0 -4.0 -6.0 -8.0 -10.0 -12.0 -14.0 -16.0 Jun-09 lun-08 Sep-08 Dec-08 Mar-09 Euro Zone United Kingdom United States Japan

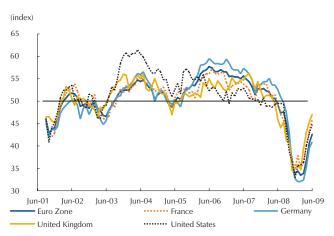
Source: Bloomberg; calculations by Banco de la República (Central Bank of Colombia).

Graph 52 Business sentiment indexes in the United States and Europe

#### A. Service Sector



#### B. Industrial manufacturing sector



Notes: ISM: The Institute for Supply Management. PMI: Markit Purchasing Managers Index. Source: Bloomberg. contraction (a/q)<sup>18</sup> in the U.S. economy and 3.1% a/q in the United Kingdom. There still are no second-quarter GDP figures for the Japanese and Euro Area economies, but the indicators at hand suggest a decline in production, although less so than at the end of 2008 and in early 2009. Quarterly growth figures for several countries were revised recently. In the case of the United States, they were lowered: GDP growth for all of 2008 was 0.4% (not 1.1%) and -6.4% for the first quarter of 2009 (not -5.5%) (Graph 51).

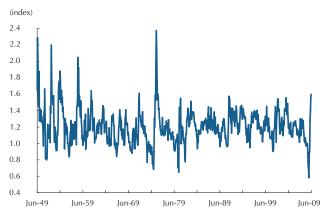
Although there is no clear change in trend for activities related to industry and commerce, the conclusion in this report still is that the drop in output in the developed economies could be nearing an end as of the second half of this year. Better financial conditions (as mentioned in Chapter II) and improvements in indicators of confidence and sentiment among market players are some of the reasons for that conclusion. As an example, the pattern of business sentiment in the manufacturing and service sectors<sup>19</sup> in the developed economies rebounded significantly during the second quarter (Graph 52). The most obvious case is the United Kingdom, where business perception and expectations (in the service sector) are already at levels that signal growth in production. The household confidence indicators have improved as well, but amidst a great deal of volatility.

The recent momentum in inventories and corporate orders also suggests the contractionary production cycle is coming to an end. As for new orders, companies in the United States resumed an upward trend in the last three months. Because inventories are so low, the rebound in orders will have to be met by increasing production during the second half of

<sup>18</sup> This figure pertains to the first revision by the Bureau of Economic Analysis (BEA).

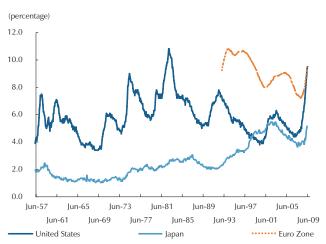
<sup>19</sup> The Institute for Supply Management produces the ISM index for the United States. Markit produces the same indicator for the other developed economies, but it is known as the Purchasing Managers' Index (PMI). An index above 50 for industrial activities or services indicates expansion. On the contrary, one below 50 is indicative of no change in activity.

Graph 53 New orders/inventory in the United States



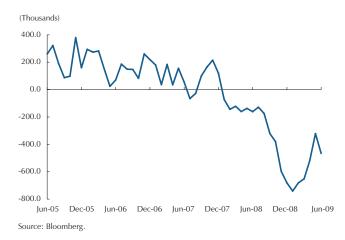
a/ Based on the ISM Business Sentiment Index.
Sources: Bloomberg, The Institute for Supply Management (ISM); calculations by Banco de la República (Central Bank of Colombia).

Graph 54 Unemployment rate in several developed economies



Source: Bloomberg

Graph 55 Net Job creation in the United States



the year. With very few exceptions, the beginning the recovery phase in previous U.S. recessions has been marked by similar situations (Graph 53).

However, recovery in the developed economies during the second half of year will be extremely slow and faced with many risks. One is the sharp deterioration in the job market, due to weak economic activity, especially in areas that generated high employment in the past, such as the financial sector, foreign trade and, to a lesser extent, the industrial sector. The cumulative impact of the enormous setback in the demand for labor means growing unemployment at rates and levels not witnessed in decades (Graph 54). In United States, there are no clear signs of a reversal in these trends. For example, although claims for jobless benefits have declined compared to March, they still are extremely high.<sup>20</sup> At the same time, the nonagricultural payroll report shows that more jobs were lost in June than in May (Graph 55).

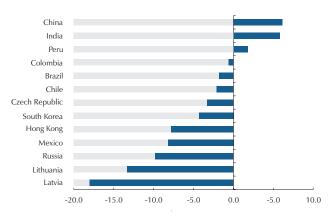
Another risk concerns the capacity for a recovery in household consumption once the fiscal benefits are no longer available. American households have begun to save during recent months, in an attempt to lower the level of their debt and as a precaution against deteriorating working conditions and possible future tax burdens. This sort of behavior can limit medium and long-term growth in consumption. Moreover, consumer lending has declined significantly in recent months, making it difficult to finance household expenses (Chapter II).

As to the emerging economies, the contraction in GDP at the start of the year was generalized (Graph 56). The largest setbacks were in the Eastern European countries, given their severe macroeconomic imbalances and the vulnerability

49|

Jobless claims in March came to 658,000. This is the highest number since the start of the crisis. There were approximately 42,000 fewer claims during the second quarter.

Graph 56 GDP of several emerging market economies, first quarter 2009

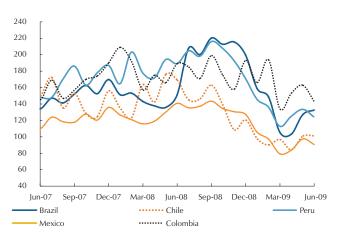


Source: Bloomberg.

Graph 57
Exports of several developing countries, in dollars (January 2006 Index =100)



B. Latin America



Sources: Bloomberg and DANE.

of their financial systems. The contraction in Latin America was not as sharp, except for Mexico.<sup>21</sup>

Signals coming from various indicators for the second quarter are mixed. For example, international trade, which was seriously affected by the external credit crunch at the end of 2008, has shown signs of stabilizing, especially in the case of several Asian economies such as China, India and Korea (Graph 57). On this respect, there is no clear recovery in sight for Latin American countries, although there have been no further contractions of major proportions.

Indicators such as industrial production and retail sales are still very volatile and remain on a downward course in most countries, with China being an important exception. The Chinese authorities were quick to intervene with an expansionist policy that has helped to mitigate the effects of the crisis by supporting the recovery in local demand. Thhis together with a improved performance in China's foreign trade, has allowed for an important improvement in a variety of indicators during the last three months. Retail sales and industrial production are a case in point. As a result, GDP growth accelerated during the second quarter to an annual rate of 7.9% (as opposed to 6.1% in the first quarter) (Graph 58).

The recent revival in China's demand for raw materials is important news for Colombia and the region. If consolidated, it would help to keep the terms of trade for Latin America at current levels, or slightly higher, although below those posted at mid-2008.

For the most part, the economic crisis in the developed countries has been passed on forcefully to the emerging markets through three channels: production, finance and confidence In terms of production, the economic downturn in the developed countries affected the exports of emerging markets through prices, particularly for raw materials, and through volume, given less demand for exports. As for the second channel, the contraction in lending the world over, which had become one of the essential pillars of international transactions, pushed the reduction in world trade to levels not witnessed since the post-war era. Finally, the decline in confidence affected investments, which are down, along with other variables such as tourism.

Graph 58 China's quarterly GDP



Table 9
Developments in Real Growth Forecasts for Colombia's Trading Partners

	Observed		Forecasts	
	2006	2007	2008	2009 a/
Major Partners				
United States	2.8	2.0	0.4	[(3.2) y (2.3)]
Euro Zone	2.8	2.6	0.8	[(4.9) y (3.3)]
Venezuela	10.3	8.6	4.8	[(1.5) y 0.5]
Ecuador	3.9	2.5	6.5	[(3.0) y (1.0)]
Other partners				
Japan	2.4	2.1	(0.7)	(6.5)
China	10.4	11.2	9.9	6.5
Peru	7.6	9.0	9.8	2.7
Mexico	4.8	3.2	1.3	(3.9)
Chile	4.3	5.1	3.2	(0.9)
Argentina	8.5	8.7	7.0	(1.9)
Brazil	3.8	5.4	5.1	(0.6)
Bolivia	4.8	4.6	6.2	1.7
Developed countries	3.0	2.7	0.8	(3.8)
Developing countries	7.9	8.3	6.0	1.5
World Total	5.1	5.2	3.1	(1.4)

a/ The forecast range is based on an optimistic scenario (ceiling of the range) and a pessimistic scenario (floor of the range).

Given the foregoing, this report contains no substantial change in 2009 the economic growth forecasts for Colombia's major trading partners. In the case of the United States, the range published in the March edition was between -3.5% and -2.0%, with a central forecast of -2.5%. According to the new forecast by the Central Bank's technical team, it now would be between -3.2% and -2.3%, with a central forecast of -2.7%. The latter would imply a much lower reduction in GDP during the second quarter than in the first, with slow recovery as of the third quarter. For Europe, growth is expected to range between -4.9% and -3.3%, with a central forecast of -4.1%. The central forecast for growth in 2009 is 0% for Venezuela and -2% for Ecuador (Table 9).

The high volatility in oil prices and other raw materials during the second quarter led to a modification in the their forecasts in this report, placing them at higher levels compared to the prediction three months ago. Specifically, the price of West Texas Intermediate crude (WTI) is expected to range between US\$50 and US\$60 a barrel in 2009, with a central forecast of US\$55. The range published in the last edition was between US\$40 and US\$56. These forecasts are related to the growth forecasts for the United States (Table 10).

At any rate, energy and agricultural prices are still below the levels observed in 2008, allowing for lower total inflation in both the developed and emerging economies. This trend has been less clear in the case of core inflation (Graph 59). The substantial release of pressure, which probably will continue throughout the remainder of the year, has enabled the central banks to maintain quite a loose monetary policy. Nevertheless, as noted in Chapter II, there are some concerns about the intermediate and long-term inflationary effects of the policies adopted by the economic authorities in the developed countries.

In short, despite the improvements mentioned with respect to several of the indicators and the conditions concerning economic stabilization, the risks to growth in both the financial markets and productive activity remain high. It's likely we will have to wait for the structural macroeconomic imbalances in

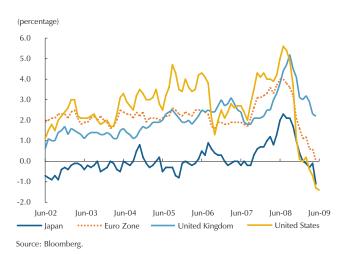
Sources: Datastream, Consensus, IMF and Banco de la República (Central Bank of Colombia).

Table 10 International prices

Product	2005	2006	2007	2008	Projection Scenario A <sup>b/</sup>	for 2009 <sup>a/</sup> Scenario B <sup>b/</sup>
Coffee (ex dock) (USD/pound)	1.20	1.18	1.26	1.44	1.20	1.80
Oil - WTI (USD/barrel)	56.6	66.1	72.3	99.9	50.0	60.0
Oil (USD/barrel)	49.8	58.3	66.2	90.2	45.8	54.9
Coal (USD/ton)	47.8	48.0	50.8	83.4	55.6	65.0
Ferronickel (USD/pound)	2.4	3.6	5.5	3.4	1.6	2.6
Gold (USD/troy ounce)	445.0	604.6	696.9	873.0	875.0	975.2

a/ Balance of payments estimated in July 2009

Graph 59 Total inflation in several developed economies (annual variation)



the developed economies to adjust before seeing a sustained recovery in economic growth.

On the other hand, although the counter-cyclical policies adopted by economic authorities may contribute a lower decline in the short-run, they also can threaten macroeconomic stability in the long run. As for the emerging market economies, the crisis has hit much of Asia and Latin America with lower force and, although low and even negative are expected for number those countries, they should recover faster than the industrialized countries. Finally, thanks to the momentum in its economy, China will play an increasingly important role in the world economy during the rest of 2009 and at least in 2010.

#### B. BALANCE OF PAYMENTS

The closing balance of payments at March 2009 showed a US\$976 m current account deficit (1.9% of quarterly GDP), which is US\$256 m less than for the same period in 2008. This deficit reduction originated with the added drop in current outlays (-US\$1.496 b) compared to the decline in current income (-US\$1.239 b). There were important annual reductions during that period in the amount of profits remitted by companies in Colombia with foreign capital (-24.6%) and in imports of goods and services (-9.4%). As to income, the major reductions (in annual terms) were in exports of goods and services (-11.1%) and in worker's remittances (-4.1%). This deficit was financed with net flows of foreign direct investment (FDI) (2.7% of GDP). Accordingly, the financial account showed a US\$1.183 b surplus (2.3% of quarterly GDP), which is US\$541 m less than the surplus posted during the first quarter of 2008.

b/ Scenarios A and B are pessimistic and optimistic, respectively. Source: Banco de la República (Central Bank of Colombia).

The closing balance of payments at March 2009 showed a US\$976 m current account deficit (1.9% of quarterly GDP).

The Central Bank's forecasts demonstrate a larger current account deficit for 2009.

The economic indicators that are available for the second quarter of 2009 suggest the economy remains weak; however, some of them show signs of a break in transactions.

For 2009, given the persistent uncertainty about the world economic slowdown (especially with respect to Colombia's trading partners: Ecuador, Venezuela, the United States and Europe) and commodity prices (oil, coal, ferronickel and coffee), consideration was given to a number of balance-of-payment scenarios that are consistent with the ranges of the forecasts included in the previous section (Tables 9 and 10). In terms of financial flows, several foreign investment projects in Colombia are not expected to be carried out, given the restrictions on access to capital markets. For this reason, capital flows to Colombia during 2009 are likely to decline. Also taken into account are the external resources the government has obtained already to finance the 2009 fiscal deficit. These come to US\$3.985 b (as announced by the Ministry of Finance and Public Credit in its Medium and Long-term Fiscal Plan [MFMLP]).<sup>22</sup>

As a result, it is possible to expect far less income in dollars from exports during 2009. In fact, the reduction could be between 18% and 27%,<sup>23</sup> mainly because of fewer traditional exports. Between 8% and 19% fewer imports are anticipated as well, given the slowdown in the Colombian economy. The forecast for workers' remittances point to a possible contraction between 12% and 18% in annual terms, depending on the extent of the economic slowdown in the countries where they originate (primarily the United States and Spain).

Consequently, the Central Bank's forecasts show a larger current account deficit for 2009, which could fluctuate between 2.9% and 3.4% of GDP, depending mostly on how the world recession affects total Colombian exports. On the financing side, this would occur in a context of less FDI and fewer financial investments by Colombians outside the country.

#### C. LOCAL GROWTH

#### 1. Second Quarter of 2009

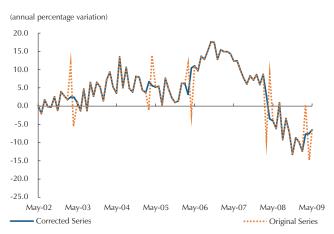
The economic indicators for the second quarter of 2009 suggest the Colombian economy remains weak and probably has continued to decline in annual terms. Nevertheless, some of the indicators contain signs of a break in these trends, which should consolidate during the second half of the year, as anticipated in this report.

On the supply side, where there is more available information, the figure released by DANE for industrial production in May showed a 6.5% annual drop compared to an average of 9.1% for the four previous months. The latest

<sup>22</sup> US\$10.4 billion from a borrowing facility approved by the International Monetary Fund were not taken into account.

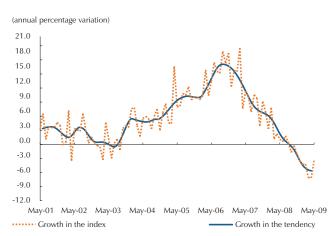
<sup>23</sup> This does not consider the impact of the measures adopted recently by Venezuela and Ecuador, which will affect bilateral merchandise trade and investments.

Graph 60 Annual growth in industrial production without coffee processing (original series vs. series corrected by working days in easter week)



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

Graph 61 Retail trade without fuel



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

annual data on industry growth show more volatility because of changes in the number of working days from one month to another, since Easter Week last year was in March rather than April. When the industrial production series is corrected by the number of working days, annual growth remains in negative ground, but with increasingly smaller reductions. This suggests the contraction in industrial production, in annual terms, may be bottoming out. Even so, annual growth in industrial GDP during the second quarter is expected to be slightly less than in the first quarter <sup>24</sup> (Graph 60).

Also, with respect to industry, the business confidence indicator based on questions in the May edition of the Fedesarrollo Business Opinion Survey concerning orders, inventories and expectations for production continued to oscillate at low levels. Nevertheless, its tendency exhibited a slight break, given the rebound in the expectation component. The indicators for orders showed no clear signs of recovery.

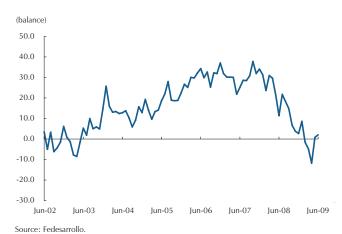
As for the construction sector, cement production in May decreased 10.3% in annual terms, which is less than the average for the first quarter (17.5%). However, building permits continued to decline dramatically (28%), especially housing permits. In June, the total demand for energy was up by only 0.8%, as opposed to 1.6% in May; the annual increase for the entire second quarter was 0.3%, which is less than in the first quarter (0.8%).

As for demand, retail sales (which are correlated with household consumption) posted a 3.5% annual reduction in May, which is less than in recent months (around -7% in April and March). This indicator continued to be affected by the sharp drop in automotive sales. When the latter are excluded, the retail sales indicator shows 0.3% annual growth by May (Graph 61).

The consumer confidence indicator calculated by Fedesarrollo rebounded slightly in June compared to the figures registered in May, but especially in April. Even so, it still is less than at any time in the last five years (Graph 62). At any rate, its recovery coincides with signs of a break in retail sales for

The quarterly GDP figures published by DANE are not corrected by the number of working days. Consequently, as mentioned earlier, they are affected by Easter Week. That change had a positive impact on annual growth in March 2009 (first quarter), but was negative for April (second quarter).

Graph 62 Consumer confidence index (2 + 3)



May and may indicate the downturn in household consumption is bottoming out.

Dollar imports wich are closely related to internal demand, contracted at an annual rate of 23.5% in the second quarter. This is more than in the first quarter (9.5%). The biggest drop in total imports during the second quarter was in intermediate goods and raw materials purchased from the United States, particularly mining products and pharmaceuticals. Imports of consumer goods were down in annual terms (17.9%) and more so than during the first quarter.

The outlook for external demand is more disappointing. As indicated on the next page, the

drop in exports in dollars accelerated during the second quarter, not only due to lower prices for raw materials, but also because of a decline in volume and the value of manufactured goods exported to different countries, but particularly to the United States, Venezuela and Ecuador. Besides the downturn in world demand, export performance has been affected by trade restrictions.

Therefore, annual GDP growth is likely to be negative again in the second quarter, given the continued decline in external demand and the frailty of internal demand, similar to what it was in the first quarter. The aforementioned effect of Easter Week also would contribute to negative annual growth; its impact would be particularly pronounced in sectors such as industry and transportation.

Given the above, the second-quarter annual growth estimate in this report is within a range of -1.4% to -0.4%. These forecasts assume the GDP figures for public consumption and civil works will be similar to what they were during the first quarter. With respect to levels, these forecasts imply no substantial change compared to the data observed in March; that is, provided DANE does not revise the historic figures.

#### 2. Outlook for 2009 as a Whole and 2010

During the rest of 2009, the country's economic performance will depend largely on how the international economic crisis evolves and the presence of exogenous shocks related primarily to the trade restrictions announced by Venezuela and Ecuador. However, only the restrictions known by mid-year are considered in this report, not the additional ones announced by the Venezuelan government at the end of July, the effects of which are still difficult to quantify.

According to the information presented in the first part of this chapter, the GDP forecasts for Colombia assume that growth the world over and particularly in

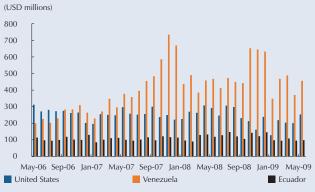
#### SECOND-QUARTER IMPORTS AND EXPORTS

Total exports in dollars posted an annual decline of 17.7% in May, due to a 10.3% drop in non-traditional exports (including gold) and 24.0% in traditional exports.

In the traditional group, coal was the only product to register a positive annual increase (17.4%). In annual terms, exports of petroleum and its by-products, ferronickel and coffee were down 40%, 39% and 23%, respectively. These reductions were due to lower implicit prices, not export volume (with the exception of coffee and coal).1

In terms of destination, non-traditional exports in dollars performed poorly compared to the same period in 2008 (Graph A). Non-traditional sales to Venezuela were down 4.7% in annual terms by May 2009. This is significant when considering their performance a year earlier, which reflected a 47% increase. Owing to trade restrictions, the biggest reductions were in clothing, transport materials and food and beverages. Non-traditional exports to the Untied States (without gold) registered 26.0% negative annual growth, as opposed to a positive annual rate of 8.9% during the same period in 2008.2 Industrial exports

Graph A Non-traditional exports minus gold to the United States, Venezuela and Ecuador



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

It is important to point out that the drop in export value for traditional products was primarily the result of a 27.5% decline in sales of petroleum and petroleum by-products to the U.S. market, due to lower crude oil prices.

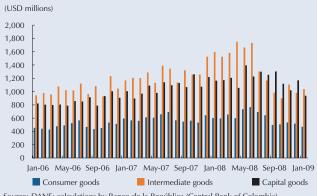
If gold exports to the United States are taken into account, the annual decline in non-traditional exports to that country was 12.3% at May 2009 compared to 16.7% positive growth during the same period in 2008.

to the United States continue to be affected the most, having declined at an annual rate of 31.7% during the first five months of the year, with no clear signs of recovery in the second quarter.

Non-traditional export performance also was affected seriously by sales to Ecuador and to Colombia's other trading partners, aside from Venezuela and the United States. By May 2009, the annual decline in exports to Ecuador was 12.8% and 15.9% to the latter group of countries. In the case of Ecuador, there were sizeable reductions in every sector with the exception of yarn and fabric and machinery and equipment. For the rest of the world, all the sectors experienced cutbacks, with the exception of bananas, clothing and machinery and equipment.

Total imports (CIF) during the course of the year to May 2009 were down 16.3% with respect to the same period in 2008. According to the type of goods (classified by economic use [Cuode]), the slowdown is due, in part, to intermediate goods, which went from an increase of 27.6% during the course of 2008 up to May to an annual decline of 28.1% during the same period in 2009. Consumer goods posted an annual rate of -12.5% in May 2009 compared to 14.2% in 2008. Capital goods showed an annual reduction of 4.1% in 2009, compared to an annual increase of 24.8% during the same period in 2008 (Graph B). In all, the make-up of imports in terms of capital goods and raw materials has changed. Capital goods accounted for 37% of the total value of imports at May 2008 and 42% in 2009; raw materials went from 45% to 38%, while the share pertaining to consumer goods has remained steady (19%).

Graph B **Imports** 



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

During the rest of 2009, the country's economic performance will depend largely on how the international economic crisis evolves and the presence of exogenous shocks.

the United States will enter positive terrain during the third and fourth quarters of this year. Nevertheless, the exercise takes into account the high degree of uncertainty that continues to surround external recovery, which is reflected in the forecast range that accompanies the central forecast. In this respect, it is important to point out that the changes in the assumptions for external growth were not significant compared to what was published in the last edition of this report.

As usual, the upper and lower limits of the range were set in light of the scenarios presented for the external situation and the balance of payments. The following are the primary assumptions:

- For the ceiling: In this case, GDP growth in the United States during 2009 is expected to be -2.3% and the current account deficit for Colombia, as a percentage of GDP, is expected to be 3.4%. Public consumption would increase 2% during the year, while investment in civil works would be up 15%.
- For the floor: GDP in the United States would decline 3.2% and the current account deficit in Colombia would be around 2.9% of GDP. Public consumption and investment (civil works) would increase 1% and 8%, respectively. As a result, public consumption would grow at rates similar to those observed the year before, while investment in civil works would increase much more.

All of the proposed scenarios assume the Colombian financial system remains solvent and will continue as such throughout the year. In other words, the financial system has not suffered significantly as a result of the financial crisis, nor is it expected to. This would keep the credit channel active, thus ensuring the effectiveness of the country's monetary policy.

The following are the main results of the exercise:

- 1. Total consumption in 2009 will increase only with the most favorable scenarios. In the others, there will be zero growth in total consumption or very little decline. Broadly speaking, this spending will be fueled largely by the performance of public consumption. The assumption is that public consumption will recover some momentum in the second half of the year compared to the first. As for household consumption, growth is expected to be negative or nil in all the scenarios, although with more strength in the second half of the year due, among other factors, to the increase in coffee prices, the expansion in government subsidies, less inflation and the effect of the interest rate cuts that have been encouraged by the BDCB since late last year.
- 2. In each case, an annual drop in private investment is expected this year, given the current amount of surplus installed capacity in the economy, plus the fact that internal and external demand are weak. The decline in

The GDP forecasts for Colombia assume thateconomic growth in the world and particularly in the United States will enter positive terrain during the third and fourth quarters of this year.

private investment would lead to negative growth in total investment, even though investment in civil works is expected to be more dynamic this year, because the municipalities and the central government are implementing a growing number of plans for road works. The increase in mining investment is also a factor.

3. The effects of the international crisis are more apparent in the external sector. Foreign trade, in general, is expected to decline throughout 2009. Imports, in particular, should see negative growth during the remainder of the year and in 2009 as a whole. This is despite the additional purchases being made by the petroleum sector and those it will continue to make for its exploration plans. In terms of exports, the second quarter is expected to see a slight recovery in levels, but not enough to prevent growth for all of 2009 from being negative. These forecasts include the trade restrictions imposed by Venezuela and Ecuador prior to July of this year.

Graph 63 GDP growth forecasts for 2009



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

Based on the foregoing, the range forecast for GDP in 2009 as a whole has not changed with respect to the one in the March report and is between -1% and 1% (Graph 63). This is consistent with a recovery in the pace of economic activity during the second half of the year. If the trade restrictions announced by Venezuela in July materialize, they would imply a bias in growth towards the lower part of that range.

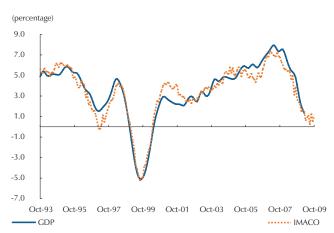
In support of these results, it is worth noting that one economic indicator calculated by the Central Bank: the leading monthly Colombian economic index (IMACO), predicts a recovery in growth as of the second half of the year, but at a slow pace. The Central Bank has been calculating IMACO for the past year and it has a consistent track record in terms of anticipating the direction of GDP (Graph 64). The methodology is described in Box 1.

of this report. It includes the assumption that the world economy and particularly the U.S. economy would be in a recovery phase of the cycle, with growth in positive terrain, although below average historic rates. In this context, prices for Colombian exports would hold steady or increase slightly compared to the forecast for the average in 2009. The balance of payments is expected to show a current account deficit similar to the one in 2009, with transfers slightly higher compared to this year. It is assumed public consumption will increase by 2.5% and civil works by 12%. Given these assumptions, economic growth in Colombia could be somewhere between 2% and 4%. This range is above what was observed and anticipated for the last two years, but less than average historic growth in the last three decades.

A 2010 GDP forecast exercise was done for the first time for the purpose

The range forecast for GDP in 2009 as a whole has not changed with respect to the one in the March report and is between -1% and 1%.

Graph 64 IMACO (leading indicator of five months GDP) and cumulative four quarter GDP growth



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

#### D. OUTLOOK FOR INFLATION

#### 1. Forecasts

Annual consumer inflation in Colombia has fallen sharply in the last six months, even more than expected by the market and according to the forecasts in earlier editions of this report. Part of the drop is attributed to the excellent performance in food prices and, previous, it may have a temporary component associated with an ample supply of staple foods within the country. However, this also contributed to a major reduction in price increases for non-tradable goods (excluding food and regulated items) and regulated prices, which was accompanied by a decline in inflation expectations. Therefore, one can say it has a permanent

component. On the other hand, although the risk of higher prices for fuel and some raw materials, as identified in the risk balance in the last report, materialized in recent months, most of their effect on costs and local prices was curbed, partly due to appreciation in the price of the peso.

Coupled with the high degree of inertia witnessed in inflation in Colombia in the past, this translated into a lower inflation forecast for the rest of the year, compared to the prediction in the March report. Even so, the outlook in this report is the same; namely, annual inflation would cease to decline in the third quarter of 2009 and would rebound towards the fourth quarter, and above all during the first half of 2010.

In spite of these changes, what determines inflation in Colombia one and two years out has not changed substantially in recent months. The following are the few adjustments that were made in this respect:

- 1. The coming quarters are expected to see less pressure for depreciation in the exchange rate, owing to more favorable terms of trade, larger influxes of capital to finance investment in the oil sector compared to those contemplated earlier, and less perception of risk with respect to Colombia and several other emerging countries. In principle, this would mean less adjustment in the price of tradable goods.
- 2. The forecast for international raw material prices and those of imported goods is higher, given the increases observed in recent months. The new increases would have more of an impact on local prices for tradables and regulated goods and services (fuel, public transportation, energy). This assumption offsets much of the effect of less depreciation, especially during the second half of 2010.

For this report we still consider that annual inflation would cease to decline in the third quarter of 2009 and would rebound towards the fourth quarter, and above all during the first half of 2010.

3. Higher food inflation in 2010, especially during the first half of the year, because food supply is expected to be relatively weak in response to the sharp drop in prices or in their annual variation during the first half of the year. The events of the past show that low food prices usually discourage food production during the following period, and prices tend to rise as a result.

The following were the most important determinants that remained the same or changed only slightly:

- There was no substantial modification in the forecast for the external context, with the exception of international raw material prices (as explained). The inflation forecasts continue to assume the world economy will recover slowly as of the second half of the year and during 2010. This being the case, external interest rates would stay below their historic average. Moreover, as in the last edition, this report takes into account the trade restrictions imposed by some of Colombia's trading partners, but only those announced prior to July of this year.
- 2. Economic growth, with no change in the forecast for 2009 (between -1% and 1%), since most of the predictions in the previous edition of this report proved to be true. The effects of the external crisis would have been pronounced during the first half of the year, and some recovery is anticipated for the second half, based on a slightly less complicated external outlook and thanks to lower interest rates and the momentum in public investment. Even so, internal growth will be limited. Therefore, it will exert no upward pressure on prices.
- 3. The extent of surplus productive capacity remains broad and the output gap is negative, although less than was forecast in the last report. The latter is because, as mentioned in Chapter I, the slowdown in potential GDP would be more than was estimated originally. Even so, the effects of these changes on prices are marginal this year and the next, which is why demand-pulled pressure on inflation is expected to be limited.

The internal and external conditions mentioned already point to inflation that will remain easily within the long-term target range announced by the BDCB (between 2% and 4%) during the current year and in 2010. However, this does not rule out the presence of several moderate surges related to temporary food and regulated price shocks or to a build-up in peso depreciation.

Annual consumer inflation in particular (according to the central forecast) should increase slightly as of the third or fourth quarter of this year, and above all in the first half of 2010, bolstered by a larger variation in prices for the more perishable foods, due to reasons associated with the farming cycle (as indicated). By the end of next year, the variation in food prices should converge again with the long-term targets.

The internal and external conditions mentioned already point to inflation that will remain easily within the long-term target range announced by the BDCB (between 2% and 4%) during the current year and in 2010.

As for core inflation and specifically non-food CPI, the forecasts point to a slight decline during the remaining two quarters of 2009. For 2010, it will oscillate around values below the ceiling of the long-term target range, but with a tendency to situate above the mid-point.

Its stability in low ranges is possible because of the sizeable reduction expected in annual non-tradable CPI inflation (excluding food and regulated prices), due to a projected growth in demand below its historical average and to idle productive capacity during the next year and a half. Likewise, the inertia in the non-tradable series in the past and its high indexed component, especially for items such as rentals, education and health care, which account for less than 25% of the basket, point to limited price adjustments at the start of 2010, given the low level of inflation anticipated at the end of 2009. In other words, the reduction in inflation observed already should help to anchor expectations and to curb price hikes via indexing.

The next two quarters are expected to see no major changes for tradables without food and regulated prices, given the anticipated stability in the exchange rate. However, some build-up in the annual variation in 2010 it is possible if the anticipated increases in international prices for raw materials and other imported goods materialize. In any case, it should be within the long-term target range in 2010. The same is true of the annual variation in regulated CPI, which is expected to experience some increases next year compared to the low levels expected for December 2009. In fact, the 2010 forecasts for this sub-basket are higher in this report.

#### 2. Risk Balance

The risk balance for total consumer and non-food inflation is shown in the fan charts (Graphs 65 and 66). There is a great deal of uncertainty surrounding the forecasts, more than is historically the case, given the instability of the world economy, the continued risks to its recovery and the high volatility seen in different indicators, including external prices for food, fuel and other raw materials.

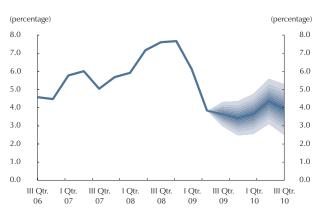
In this report, the risk balance has a slight downward bias with respect to the central forecast. The main downward risks are:

1. A more prolonged external crisis than anticipated in the central forecast and, above all, a slower and delayed recovery in world demand. Despite indications that the plunge in the world economy is bottoming out, the risks of a standstill are high, particularly due to the serious slump in the job market in the developed economies, which could have long-term repercussions for consumption. Moreover, the macroeconomic imbalances in the developed economies would continue, chiefly because of the huge increase in government debt. Although, in this

The reduction in inflation observed already should help to anchor expectations and to curb price hikes via indexing.

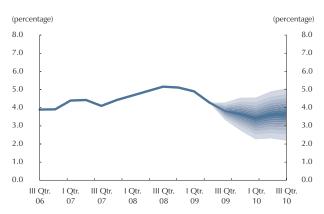
kind of scenario, added depreciation in the price of the peso could bring upward pressure to bear on inflation, less demand for Colombia's exports also would be expected, with subsequent downward pressure on local prices. The consideration in this report is that the second situation could prevail, since the pass-through from depreciation to prices in the presence of a negative output gap is limited. Therefore, the risk points in the direction of less inflation compared to the central forecast.

Graph 65 Fan Chart of Total Inflation <sup>a/</sup>



 $\mbox{\ensuremath{a}}/\mbox{\ensuremath{The}}$  forecasts are based on a monetary policy that is designed to ensure compliance with the long-term targets for inflation.

Graph 66
Fan chart of non-food inflation a



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

- Source: calculations by Banco de la República (Central Bank of Colombia).
  - 2. A less active credit channel. The central forecast assumes that lending in Colombia would flow normally during the rest of the year, and in 2010, in response to the monetary-policy initiatives. However, an extension of the external crisis or more exposure to it than was anticipated initially could reduce the internal credit supply or curb the demand for it. In that case, the Colombian economy would be slower to recover and, consequently, there would be less pressure on prices.
  - 3. Less growth in Colombia during 2009 and next year due to reasons unrelated to the external crisis. Specifically, if the new trade restrictions announced by some of the country's trading partners in July take effect, they would have an important impact on economic activity in sectors such as industry. Those restrictions were not included in the central scenario outlined in this report and may have a net downward effect on prices, in spite of possibly being accompanied by pressure on the exchange rate.

The following are the main risks to higher inflation.

1. *El Niño*. At the time this report was written, the likelihood of a moderate or strong Niño phenomenon towards the end of the year and in early 2010 was relatively high. If it occurs, food prices probably would be higher

There is a great deal of uncertainty surrounding the forecasts, more than is historically the case, given the instability of the world economy, the continued risks to its recovery and the high volatility seen in different indicators, including external prices for food, fuel and other raw materials.

than those anticipated in the central forecast. The impact on prices would be more pronounced towards the first and second quarters of next year. However, judging by what happened in previous instances, most of its direct impact would have disappeared towards the end of 2010.

2. A continuation of the upward trend in international fuel and raw material prices. The commodity price hikes observed during the second quarter, in answer to signs of a recovery in the world economy, could indicate an extremely limited capacity for response in terms of supply. More growth in the future would produce higher increases than those contemplated in this report, which could have inflationary effects. A tendency towards peso appreciation would not necessarily offset those pressures, as suggested by the experience in 2007 and 2008.

In view of the foregoing, the risk analysis indicates that inflation very likely will end 2009 at a level below the target range set by the BDCB for this year (between 4.5% and 5.5%). Towards the longer term, there is a high probability that inflation will remain in the upper part of the long-term target range (between 2% and 4%), although a temporary surge towards mid-2010 is possible. The tendency in non-food inflation would be similar, but with more stability (Graphs 65 and 66).

## Box 1 EMERGING ECONOMIES AND THE INTERNATIONAL CRISIS WHAT IS DIFFERENT THIS TIME?

Ricardo Bernal Alexandra Heredia José Vicente Romero Ch.\*

The present section looks at several crisis periods in emerging economies based on the classification done by Calvo et al. (2006). The main objective is to characterize an "average" crisis for an emerging market economy and to talk about some of the aspects that may distinguish it from the current macroeconomic situation. To do so, variables in addition to those included in the work of Calvo et al. (2006) are analyzed and several average macroeconomic indicators are presented to help describe each economic cycle and to identify that factors that allowed for recovery.

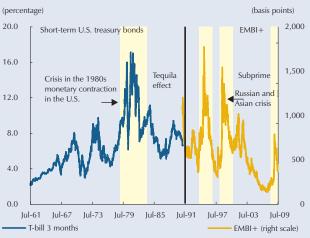
#### 1. Several Crisis Episodes in Emerging Economies

When analyzing crisis episodes in emerging economies, it is important to underscore the fact that they have been accompanied, on many occasions, by a considerable rise in the cost of international financing (an increase in the spread on the private and public debt) and by a breakdown in capital flows. Moreover, the shocks have not been independent and, in general, have affected different emerging economies simultaneously.

This observation is summarized in Graph B1.1, which shows the crisis periods in emerging economies and the subprime crisis (shaded areas), together with a measure of the cost of financing for those economies. As illustrated, from the beginning of the subprime and financial crises, the relative cost of resources for emerging markets has increased, but not as on previous occasions.

Eleven episodes (Table B1.1) were singled out for a more detailed analysis of the structure of the crisis in emerging economies. Complete cycles were examined for those episodes, in which output returns to a value equal to or above its pre-crisis level.<sup>1</sup> In general, as mentioned

Graph B1.1 Estimate of liquidity in international markets



Source: Calvo et al. 2006. Calculations by Banco de la República (Central Bank of Colombia).

Table B1.1 Crisis episodes in emerging economies

Country E <sub>I</sub>	F	Cycle of the crisis (year)			
	Episodes	Peak	Trough	Peak	
Argentina	1	1994	1995	1996	
	2	1998	2002	2004	
Chile	1	1998	1999	2000	
Colombia	1	1998	1999	2002	
Ecuador	1	1998	1999	2001	
Philippines	1	1997	1998	1999	
Peru	1	1981	1983	1984	
	2	1997	1998	1999	
South Africa	1	1981	1983	1984	
Thailand	1	1996	1998	2002	
Turkey	1	1998	1999	2000	

Source: Based on the episodes mentioned by Calvo et al. (2006).

earlier, these crisis episodes were accompanied by capital flight and/or sharp restrictions on international financing, making it difficult to identify a crisis that is entirely internal in origin, as has been documented extensively in the literature (Sarno and Taylor, 2002).

In our selection of episodes, the duration of the period between the highest level of production prior to the crisis (peak) and the recovery in production level is 3.2 years and 1.6 years, on average, from the lowest production

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<sup>1</sup> The dates of the episodes are determined according to the classification done by Calvo et al. (2006).

point up until return to the production level (from trough to peak).

Graph B1.2 shows how some of the real main macroeconomic variables performed, on average. They were scaled at the lowest production point during the period and plotted two quarters before and after that minimum. The variables pertain to quarterly variation indexes, contrary to the exercise by Calvo et al. (2006), where percentages of GDP are used. As illustrated, the recovery in public spending and exports coincides with output. Despite also having reached its lowest point, together with GDP, consumption takes more time to recover. Lending remains at low levels and does not managed to recover in proportion to GDP.

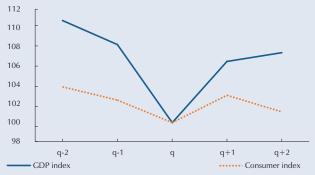
A statistical exploration summarizing the average percentage variation (together with its statistical significance) of the main macroeconomic variables during the selected episodes in our

sample of countries<sup>2</sup> is shown in Table B1.2 to complement the analysis and exercise proposed by Calvo *et al.* (2006). As illustrated, consumption is highly procyclical and manages to recover in a way similar to total production. Credit shows a positive variation, but less so than production, leaving total credit with a lower share of GDP, as documented by Calvo *et al.* (2006). By the same token, investment does not manage to be statistically significant.

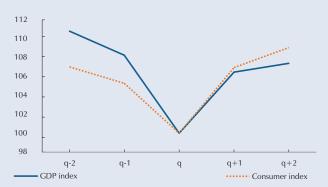
The short-term interest rates mirror a sharply restrictive monetary policy, one that is linked, in part, to the fixed or control-float arrangement for the exchange rate that prevailed during the periods in question. The interest rate hikes were intended to avoid capital flight and massive depreciation in local currencies. As in the foregoing graph, exports and public spending are an important element in reactivating aggregate demand and, consequently, output. For these two variables, recovery and its impact on demand can be observed from the trough of the crisis up until

Graph B1.2

## A. Production versus consumption in the principal 3S events

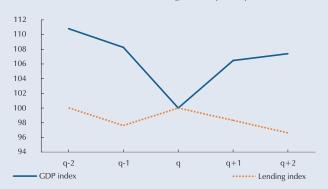


#### C. Production versus exports in the principal 3S Events

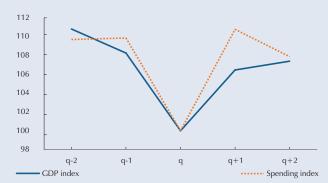


Source: calculations by (Central Bank of Colombia).

B. Production versus lending in the principal 3SS events



### D. Production versus spending in the principal 3S events



<sup>2</sup> This is done with a simple regression by ordinary least squares compared to a constant. The reported amount pertains to the parameter of the intercept and its standard deviation.

Table B1.2 Summary of estimates (real variables)

		Percentage variatio	ns
Indexes	Peak to trough	Trough to peak	Throughout the entire period
GDP	-7.2168***	22.976***	13.902***
	(1.556)	(3,389)	(3.163)
Consumption	-3.7859*	16.579***	12.066***
	(1,960)	(3.0185)	(3.4301)
Lending	13.527	-9.5978	6.3670
	(8.5689)	(6.7250)	(0.5778)
Exports	3.5814	23.159***	27.8960***
	(3.4738)	(5.5441)	(7.4343)
Public spending	0.6986	22.302***	22.071***
	(2.8216)	(6.7735)	(5.7664)
Imports	-17.595**	39.3963***	10.7128
	(6.5121)	(8.8975)	(7.4128)
Investment	-24.604**	28.648*	-8.3906
	(8.1196)	(13.3802)	(7.8162)
Tasa de	76.566*	-20.053	14.917
interés	(39.895	(18.638)	(23.023)

Note: The standard deviation is in parenthesis. Thirteen countries were used in the estimate, with exception of the investment index, for which 10 countries were used. \*10% level of significance , \*\* 5% level of significance, \*\*\* 1% level of significance.

recovery. They remain unchanged during the period from the peak to the trough (without statistical significance).

Some of the principal stylized aspects of the crisis episodes and their subsequent recovery in emerging economies can be gleaned from this graphic and statistical inspection. For instance, i) there is a turning point in consumption that coincides with total GDP, although its level does not recover as quickly; ii) both public spending and exports have a turning point that coincides with the cycle; iii) monetary

policy during these episodes was contractive; and; iv) domestic lending and investment do not recover in line with the cycle and, when they do recover, it is not to precrisis levels.

#### 2. What is different this time?

To begin with, and contrary to other episodes, the epicenter of the current financial crisis is in the world's major economies and not in the developing countries. Moreover, and despite the sharp rise in the risk premiums of emerging economies, they have not increased as much as in previous episodes.

Secondly, most of the developing countries<sup>3</sup> have had no direct exposure to the financial crisis, nor has there been a sharp devaluation in asset prices (including mortgage assets). Also, their financial system is not as integrated with the financial system in the United States, as it is in many industrialized economies, nor is it highly exposed to toxic assets. To the extent that the financial sector in most emerging economies is healthy, lending could allow for a faster recovery in these countries, as opposed to what happened in previous crisis episodes.<sup>4</sup>

Thirdly, a number of macroprudential measures were implemented in some developing countries after the crisis at the end of the nineties. In fact, some of the region's economies that maintained a responsible monetary and fiscal policy have a sustainable current account deficit financed primarily through foreign direct investment. Moreover, for the first time, a variety of emerging Latin American and Asian markets have been able to take anti-cyclical action on the fiscal and monetary front. Those policies have tempered the negative impact of the international crisis, generating earlier recovery than what might occur in the developed countries or in Eastern Europe.

In conclusion, it is important to point out that the current macroeconomic situation undoubtedly will have a major impact on output in the emerging countries, particularly

<sup>3</sup> With the exception of some Eastern European economies.

The results of the characterization of the selected crisis episodes with respect to lending may be biased to the extent that practically all of them are associated with crisis in the financial sector. For that reason, it is understandable that it might not be a driving force of recovery. Moreover, Rigobon (2006) mentions the possibility that the informal financial sector is used more during economic recovery. Finally, to judge the role of lending in recovery, one must analyze episodes of economic crisis unrelated to the financial system; that is, episodes of fiscal or deflationary crisis.

because of less momentum in international trade. However, the way their economies respond to the crisis could be more favorable than in past episodes, given the reasons outlined in this section.

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## Box 2 A LEADING MONTHLY COLOMBIAN ECONOMIC ACTIVITY INDEX: IMACO

Herman Kamil José David Pulido José Luis Torres\*

Given the three-month lag in the report on GDP, it is extremely beneficial for policy makers to have other, more timely indicator of economic activity that anticipate, in some way, how the economic cycle will behave. This information is particularly crucial to the country's monetary authorities, given the time it takes policy measures to influence economic activity. Accordingly, the focus of this section is on outlining the method used and main results of the construction of a new monthly leading indicator of economic activity in Colombia, known as IMACO (Spanish for Monthly Colombian Economic Activity Index).

Several central banks and economic agencies throughout the world have leading economic indicators. They can be tracked or monitored through a breakdown, as in the case of the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER), which separately analyzes variables such as industrial production, retail sales, available income and employment, among others, or by combining what are considered leading variables into a single compound index. Probably the most well-known indicators in this last category are those of the Chicago Federal Reserve and the Centre for Economic Policy Research (CEPR), which use methods based on factor analysis. The first has the Chicago Fed National Activity Index (Cfnai), estimated on the basis of the first principal component of 85 series of relevant activities (see the Federal Reserve Bank of Chicago, 2001). CEPR has EuroCOIN, which

uses 150 series of different countries in the Euro Area and is based on the method proposed in Altissimo et al. (2001).

In Colombia, Maurer et al. (1996) were pioneers in the implementation of traditional methods (NBER) to estimate leading indicators. A few years back, in a joint project, Nieto and Melo (2001), Melo et al. (2002) and Melo, Nieto and Ramos (2003) proposed a method for calculating a leading indicator based on a modification of the Stock and Watson procedure (1992), but with a high computational cost. This aspect, plus the fact that some of the selected variables had quite a backlog in publication, prevented the indicator from being used, in practice, as a tool to monitor the situation and to design economic policy. More recently, Rozo (2008) suggested another leading indicator that uses the "forecasting with many predictors" method proposed by Stock and Watson (2004).

The priority in constructing IMACO was the simplicity and computational cost, so it can be updated easily for continuous monitoring, in addition to providing a method that can be replicated with other macroeconomic aggregates. IMACO was constructed on the basis of a heuristic search algorithm that selects a reduced group of economic variables that combined into a synthetic indicator has three desirable properties. Namely, it: i) exhibits a high forward correlation with the economic cycle, ii) anticipates its breaking points without giving false signals, and iii) minimizes GDP growth forecast errors.

#### 1. The Method Used to Construct IMACO

Initially, a database was constructed with approximately 170 monthly and quarterly series related to Colombian economic activity. Included, among others, were series revealing sector economic activity (industry, commerce, services and construction), as well as monetary, banking, financial, fiscal, price, job market and international trade series and others revealing consumer, industrial and business expectations. After that, only the monthly series available since 1990 (a total of 117 series) were considered and transformed to eliminate any distorting statistical noise. The transformed series were organized in three different ways, based on the following criteria:

<sup>\*</sup> This section summarizes a document of the same name by Kamil, Pulido and Torres (2009) that offers a detailed description of the process used to estimate IMACO.

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<sup>1</sup> The principal components method is used in the absence of an explicit causal model and when the only objective is to reduce the dimensionality of a data set. Each principal component is a linear combination of the series, so that the variances of the given set of information are maximums. This guarantees the combination compiles the largest quantity of co-movements of the series.

<sup>2</sup> The transformation involved a deflator process, the extraction of outliers, the application of logarithms, seasonal adjustment (taking into account the number of working days in the Colombian calendar), differentiation of the series with evidence of unit root and extraction of the tendency in the series where it appeared significant.

- 1. The extent of their maximum forward correlation with respect to accumulated GDP growth for four quarters,<sup>3</sup> since this is the Colombian GDP growth that is revised the least.<sup>4</sup>
- The value of a constructed statistic that counted the number of times the twelfth-order moving average of each series captured the main breaking points in accumulated GDP growth for four quarters and sanctioned those series that announced a break in the cycle that did not occur.
- 3. The extent of the u-theil statistics shown by linear models to forecast monthly GDP,<sup>5</sup> constructed on the basis of the lags in the same and in each of the series under consideration; in other words, the following regression model was estimated for each series xi,t:

$$y_{t} = \alpha + \beta (L)y_{t-1} + \gamma (L)x_{i,t-1} + \mu_{t}$$

where yt is the first difference of the reference variable and  $\beta(L)$   $\gamma(L)$  are lag polynominals whose orders were determined pursuant to the stepwise algorithm with maximum order 12.6

The proposed algorithm used the aforementioned criteria in a resourceful way. First, a k number of series with the highest forward correlation with accumumulated GDP growth for four quarters was selected to ensure that whatever combination is selected from among them, the first principal component also might have a high correlation (in the IMACO in this section, k is 18). Then, the k series considered in all the possible groups of two, three and up to k series were grouped. In total, more than 250 thousand different groups of series were evaluated.<sup>7</sup>

Then, the first principal component of each established group was computed and its maximum forward correlation with accumulated GDP growth for four quarters was evaluated. These components were ranked according to that criterion, and a sufficient number of them were selected from among the best of that arrangement (in IMACO, the first 25 were taken into account). At a second stage, one component was selected from among this sub-group of 25 principal components to minimize the average forecast errors for a specific time horizon, according to the u-theil statistics of the forecast models for the functional form mentioned earlier. Finally, the selected principal component was verified as having a maximum number of points in the breakpoint (in other words, it will forecast all the breakpoints in the cycle without giving false signals).<sup>8</sup>

#### 2. IMACO: Calculation and Performance

In ranking the groups of series pursuant to the values of the u-theil statistics for forecasts from seven to fifteen months out (a period when uncertainty is usually high), the seven series in IMACO are: the question of industrial orders compared to the month before (Source: Fedesarrollo), the question of commercial sales in units compared to the month before (Source: Fedesarrollo), the index of industrial production of capital goods (Source: DANE), productivity per hour worked in industry (authors' own calculations based on data from DANE), the real interbank interest rate (Source: Central Bank of Colombia), growth in the demand for energy (Source: www.xm.com.co) and real M3 growth (Source: Central Bank of Colombia).9 It is interesting that the real interest rate has been selected, as it underscores how important monetary policy is to stabilizing the economy, as well as the existent lags in monetary policy pass-through. Moreover, the fact that two questions from the Fedsarrollo business opinion survey are among the selected series demonstrates the importance of tracking business perception and expectation surveys. Comprised as such, IMACO has a five-month forward correlation of 93% with respect to accumulated GDP growth

<sup>3</sup> The correlations were evaluated for the transformed original series and for their twelfth-order moving averages.

<sup>4</sup> In this respect, see Pulido (2008).

<sup>5</sup> GDP by the month was determined with an optimization algorithm that seeks to minimize the variance of the resulting series (monthly) by preserving the growth revealed in the original series (quarterly), following the DISTRIB.SRC routine in the RATS package.

<sup>6</sup> The forecast errors of the models of each series were deducted on the basis of rolling exercises that re-estimated the parameters each month and the orders of the two lag polynominals every two years. Those errors were calculated only for the final months of each quarter of GDP, so the forecasts were compared only with the growth that was actually actually published (quarterly GDP).

<sup>7</sup> The quantity of different groups of series would be given by:  $\sum_{i=2}^{k} \frac{k!}{(k-i)!i!}$  with k equal to 18 in IMACO; 262,125 distinct groups of series were evaluated.

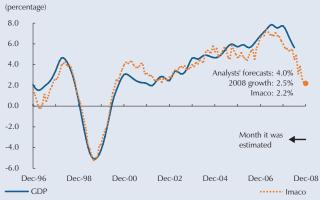
<sup>8</sup> Two important results were observed when applying the search algorithm described above. First, the best compound index in terms of the aforementioned criteria was not necessarily comprised of the variables that showed the best individual performance with respect to each of those criteria. Secondly, the series comprising the best compound index varied depending on the desired forecast horizon.

<sup>9</sup> However, when considered for a different forecast horizon, this principal component showed a higher u-theil statistic, on average. Therefore, the choice of the series comprising IMACO varies, depending on the relevant forecast horizon.

for four quarters.<sup>10</sup> In addition, the average publication lag for the series included in IMACO is one month.<sup>11</sup>

IMACO's predictive performance has been quite good during the short time it has been in operation. Its actual performance is shown in Graph 64 in Chapter III of this report. The model was able to forecast the sharp slowdown in the Colombian economy towards the end of 2008 several months in advance, generating far more precise predictions than those developed by local and international analysts at the time. For example, at the start of September 2008, when figures for economic activity were available only up to July and the second-quarter GDP figure had yet to be released, IMACO summarized the state of the economy up to December of that year. Graph B1.1 shows IMACO's performance for that period, together with four quarters of accumulated GDP growth observed up to that point; it also shows what IMACO suggests for growth in 2008, which was closer to actual growth in the Colombian economy that year (2.5%) than what was forecast at the time by other analysts (the forecasts are shown in Graph B2.1).

Graph B2.1 Imaco (leading indicator of five months GDP) and accumulated GDP growth in the fourth quarter



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

These results suggest that IMACO can become a useful tool for tracking the economic situation and managing economic policy. At present, it is monitored monthly and gives the Central Bank's technical team and its Board of Directors an additional source of input to diagnose the performance of the Colombian economy.

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<sup>10</sup> When calculated with the twelfth-order average of those series.

<sup>11</sup> Historically, its average forecast error with respect to accumulated GDP growth for 12 months is 52 bp for that horizon, which is less than the average forecast error of other alternative models (for details on the results, see Kamil, Pulido and Torres, 2009).

## **A**TTACHMENT

## Macroeconomic Forecasts by Local and OUTSIDE ANALYSTS

The following is a summary of the latest forecasts by local and outside analysts with respect to Colombia's main economic variables for 2009 and 2010. When consulted, the analysts had access to data up to July 2009.

#### 1. **Forecasts for 2009**

On average, the local analysts expect -0.2% economic growth compared to the forecast of -0.1% in the last edition of the Inflation Report. The outside agencies expected GDP growth to average -0.3%.

Table A1 Forecasts for 2009

	Real GDP growth (perce	CPI Inflation entage)	Nominal exchange rate (end of)	Nominal DTF (percentage)	Fiscal Deficit (percentage of GDP)	Unemployment rate for thirteen cities (percentage)
Local analysts	1					
Alianza Valores	(0.5)	3.6	1,869	4.8	(2.5)	13.5
ANIF a/	(0.5)	4.0	n.d.	4.4	(4.0)	12.8
Banco de Bogotá	(0.5)	3.7	2,175	4.8	(1.9)	13.5
Banco Santander	(1.0)	3.9	2,350	5.1	(2.4)	13.0
Bancolombia a/	0.3	3.7	2,231	6.4	(4.4)	n.a.
BBVA Colombia a/	(0.5)	4.1	2,252	4.8	(4.3)	13.0
Corficolombiana	0.0	3.6	2,397	4.8	n.a.	n.a.
Corredores Asociados	0.4	4.0	2,050	4.3	(3.9)	14.0
Correval	0.4	3.4	2,155	5.4	(2.7)	13.5
Fedesarrollo <sup>a/</sup>	0.4	3.7	2,280	n.a.	(4.0)	13.8
Average	(0.2)	3.8	2,195	5.0	(3.3)	13.4
Outside Analysts						
Citibank	(0.5)	4.0	2,200	4.8	(4.1)	14.0
Deutsche Bank	0.0	4.3	2,320	n.a.	n.a.	14.0
Goldman Sachs	(0.1)	4.1	2,350	n.a.	(3.0)	n.a.
JP Morgan	(0.5)	4.1	2,200	4.5	(2.5)	n.a.
Average	(0.3)	4.1	2,268	4.6	(3.2)	14.0

n.a. not available. a/ Projected central government deficit.

Source: Electronic survey

The local analysts expected inflation to be 3.8% by the end of the year; the outside analysts are predicting 4.1%, on average. These rates are below the floor of the target range set by the BDCB for 2009 (between 4.5% and 5.5%).

As for the exchange rate, the local analysts expect the representative market rate (TRM) to average COP \$2,195 by the end of the year compared to COP\$2,439 forecast in the April 2009 survey. The outside analysts predict a TRM at around COP \$2,268 by the end of the year.

With respect to the DTF, both the local and outside analysts expect sharp reductions compared to the forecasts in the previous report: 5.0% and 4.6%, respectively (5.9% and 5.8% in the April survey). Moreover, the local analysts consulted for this report expect 13.4% unemployment; the outside analysts are forecasting 14.0%.

#### 2. Forecasts for 2010

The local analysts anticipate 2.2% economic growth in 2010, while the outside analysts expect 2.6%. As for inflation, the local analysts have a slightly higher forecast than the outside analysts (4.3% as opposed to 4.1%). The local and outside agencies expect the exchange rate to average COP\$2,274 and COP\$2,375, respectively.

Table A2 Forecasts for 2010

	Real GDP growth (perce	CPI Inflation	Nominal exchange rate (end of)
Local analysts			
Alianza Valores	2.5	4.7	2,120
ANIF a/	2.6	4.5	n.a.
Banco de Bogotá	2.5	4.5	2,250
Banco Santander	2.2	4.5	2,200
Bancolombia	1.4	n.a.	n.a.
BBVA Colombia a/	1.5	3.8	2,308
Corficolombiana	1.2	4.0	2,435
Corredores Asociados	3.5	4.5	2,200
Correval	2.0	4.3	2,186
Fedesarrollo	2.4	3.9	2,490
Average	2.2	4.3	2,274
Outside Analysts			
Citibank	2.5	3.8	2,200
Deutsche Bank	2.5	4.4	2,400
Goldman Sachs	2.5	3.8	2,500
JP Morgan	3.0	4.5	2,400
Promedio	2.6	4.1	2,375

n.a. Not available

a/ Projected central government deficit

Source: Electronic survey

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