INFLATION REPORT

December 2013

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* Submitted by the Technical Staff for the meeting of the Board of Directors on January 31, 2014.

Banco de la República
Bogotá, D. C., Colombia

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The Inflation Targeting Strategy in Colombia

OBJECTIVES

Monetary policy in Colombia is based on inflation targeting, which is intended primarily to keep inflation low and to ensure stable growth in output near its long-term trend. 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 *Banco de la República* (the Central Bank of Colombia, BDBR) sets quantitative inflation targets for the current year and the next. The BDBR's policy initiatives are designed to meet each year's target and to provide for long-term inflation at around 3.0%. The annual change 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 deviation would not be due to temporary shocks, the BDBR modifies its policy stance. For the most part, this is done by changing the benchmark interest rate (charged by *Banco de la República* on short-term liquidity operations).

COMMUNICATION AND TRANSPARENCY

Decisions on monetary policy are announced after meetings of the Board of Directors. This is done 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 agents in the economy to form their own expectations about future developments with respect to inflation and output growth.

Content

Developments in Inflation and Monetary Policy Decisions 9

I. The External Context and Balance of Payments 15
A. The International Situation 15
B. Balance of Payments 23
Box 1: The Effect that Tapering Might Have on the Balance Sheets in Colombia's Productive and Financial Sector 29

II. Domestic Growth: the Current Situation and the Short-Term Outlook 31
A. GDP - Third Quarter of 2013 31
B. GDP - Fourth Quarter of 2013 35
Box 2: Characterization of Gross Fixed Capital Formation in Colombia: Performance And Momentum In Recent Years 42

III. Recent Developments in Inflaton 45
A. Core Inflation 48
B. Food Inflation 50
Box 3: The Apparent Paradox Between Simultaneous Declines in Inflation and Unemployment: an Explanation Based on Supply Shocks 52

IV. Medium-Term Forecasts 55
A. Economic Growth 55
B. Inflation 60

V. Risks to Long-Term Macroeconomic Stability 68
A. The Current Account and the Real Exchange Rate 70
B. Borrowing 71
C. Home Prices 73
D. Long-Term Estimates and the Macroeconomic Imbalance Index 74

Attachment: Macroeconomic Forecasts by Local and Foreign Analysts 76

Graphs

Graph 1	Global Productive Activity Indexes	16
Graph 2	Real GDP in the United States	16
Graph 3	Euro Area Productive Activity Indexes	17
Graph 4	Annual Growth in Monthly Economic Activity Indexes for Several Latin American Economies	18
Graph 5	International Oil Prices (Brent and WTI)	18
Graph 6	International Food Prices	18
Graph 7	Terms of Trade Index	18
Graph 8	Interest Rates on 10-year US Treasuries	20
Graph 9	Global Stock Indexes	20
Graph 10	Five-year Credit Default Swaps (CDS) for Several Latin American Countries	20
Graph 11	Exchange Rate Indexes for Several Latin American Countries	21
Graph 12	Total Exports	24
Graph 13	Total Imports FOB	25
Graph 14	Gross Domestic Product	31
Graph 15	GDP for Tradables, Non-mining Tradables and Non-tradables	35
Graph 16	Monthly Retail Trade Sample	36
Graph 17	Consumer Confidence Index and Quarterly Average	36
Graph 18	Unemployment Rate	36
Graph 19	Real Household Interest Rates	38
Graph 20	Balance of Investment Expectations (MSEE) versus Annual Change in GFCF Excluding Construction of Buildings and Civil Works	38
Graph 21	Coffee Production	39
Graph 22	Oil Production	39
Graph 23	Industrial Production Index Excluding Coffee Processing	40
Graph 24	Imaco Leading Indicator for 5 Months of GDP	41
Graph 25	Total Consumer Inflation	45
Graph 26	PPI by Origin	47
Graph 27	Nominal Wages	47
Graph 28	Core Inflation Indicators	48
Graph 29	CPI for Regulated Items and Components Thereof	48
Graph 30	Tradable and Non-tradable CPI Excluding Food and Regulated Items	49
Graph 31	Non-tradable CPI	50
Graph 32	Food CPI	50
Graph 33	Food CPI, by Groups	51
Graph 34	Annual GDP Growth Fan Chart	59
Graph 35	Quarterly Annual GDP Growth Fan Chart	59
Graph 36	Output Gap Fan Chart	60
Graph 37	Annual Inflation Forecasts by Banks and Brokerage Firms	62
Graph 38	Actual Inflation and Inflation Expectations	63
Graph 39	TES-derived Inflation Expectations	63
Graph 40	Headline Inflation Fan Chart	64
Graph 41	Non-food Inflation Fan Chart	64
Graph 42	Current Account Components	70

Graph 43	Merchandise Exports	70
Graph 44	eal Exchange Rate Indexes	71
Graph 45	Commercial Borrowing	72
Graph 46	Household Loan Portfolio	72
Graph 47	Housing Prices Relative to the CPI	73
Graph 48	New Home Price Index in Different Cities, Relative to the CPI	73
Graph 49	Willingness to Purchase a Home	73
Graph 50	Gaps in the Current Account, Real Exchange Rate, Housing Prices and Lending	74
Graph 51	Macroeconomic Imbalance Index (MII)	75

Tables

Table 1	Growth Forecasts for Major Trading Partners	21
Table 2	Reference Price Forecasts for the Commodities Exported by Colombia	23
Table 3	Balance of Payments Forecast for Colombia	26
Table 4	Real Annual GDP Growth, by Type of Spending	32
Table 5	Real Annual GDP Growth, by Branches of Economic Activity	33
Table 6	Consumer Inflation Indicators	46

Developments in Inflation and Monetary Policy Decisions

Global economy continued to recover in the fourth quarter of 2013, thanks to the added momentum in the developed economies, especially the United States. In the euro area, the economic indicators pointed to low, but positive economic growth. Growth in the major emerging countries of Asia and Latin America was mixed, with rates near or below the productive capacity of their economies. The estimates for 2014 indicate the global recovery will continue and Colombia's trading partners would post higher growth than in 2013, on average.

In the United States, the unemployment rate continues to fall and output remains on the road to recovery. Important fiscal agreements were reached as well, and there was less uncertainty about government financing in the medium term. In this context and with inflation and inflation expectations at low levels, the Fed again reduced the amount of is purchases of financial assets and reaffirmed its commitment to keep interest rates at the current level for an extended period of time. Accordingly, to the extent that liquidity levels continue to be less expansive, international financing costs could increase.

The improvement in economic prospects for the United States and the monetary policy actions it has taken affected bond markets, stocks and currencies. In the case of Colombia, the peso depreciated against the dollar and financial asset prices have deteriorated. The international price of oil remains high and the decline in prices for other commodities exported by Colombia, such as coal, nickel and coffee, came to a halt. This being the case, the country's terms of trade likely will remain favorable in 2014, although their contribution to national revenue could be less than was the case in 2013.

As for exports, their dollar value increased 2.6% annually by November 2013; however, the levels accumulated during the year were below those observed for the same period in 2012. Lower international prices have undermined the value of exports in all sectors, but especially those of agricultural origin. Imports in November posted an annual decline of 1.8%, and the accumulated figure for the year was similar to that observed in the same period of 2012. These trade figures suggest the current account deficit relative to gross domestic product (GDP) would be about 3.4% in 2013.

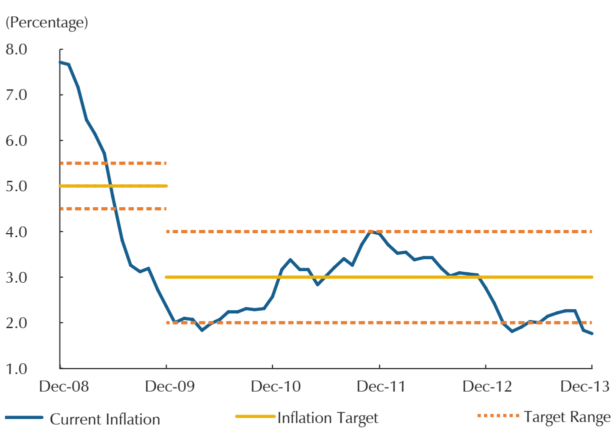
In the domestic context, economic growth in the third quarter of 2013 was 5.1%. This exceeds the estimate and is due mainly to the momentum in construction. Government consumption accelerated and household consumption grew at a good pace. Export growth was low and less than import growth.

New figures for the fourth quarter of 2013 show the unemployment rate continues to decline. Credit growth continues to slow, but registers higher rates than nominal GDP growth. Lending interest rates (excluding credit cards) are low and stimulate aggregate demand. Given these results and the economic indicators of domestic and foreign demand, the Bank's technical staff estimates GDP growth in the fourth quarter will range between 4.0% and 5.0%, with 4.5% being the most likely figure. For 2013 as a whole, the most likely figure would be 4.0%, within a range of 3.7% to 4.3%.

Low real interest rates that encourage aggregate spending, coupled with dynamic government investment, should help to place output in 2014 near the natural output level of the economy. Accordingly, the forecast for economic growth this year is around 4.3%, with a minimum and maximum between 3.3% and 5.3%.

As for inflation, food prices trended downward in the fourth quarter of 2013, because the supply of food increased, fuel prices were lower than those observed a year earlier, and the rate hikes for public utilities were low. Additionally, there was little demand-pulled pressure on inflation. These factors explain much of the slowdown in inflation (Graph A), which went from 2.27% in September to 1.94% in December. During the same period, the average of the core inflation indicators remained stable at around 2.5%.

Graph A
Total Consumer Inflation

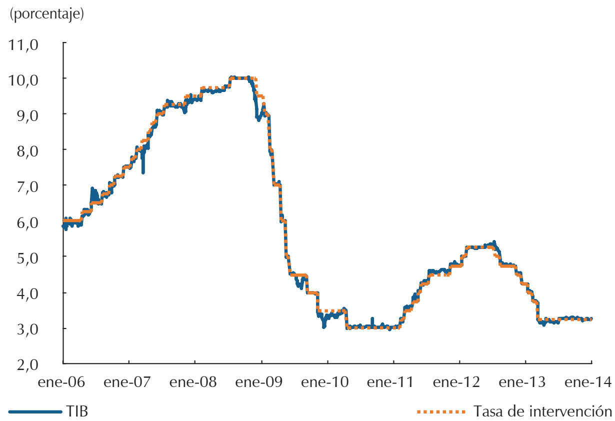


Sources: DANE and *Banco de la República*

The outcome for annual inflation in the fourth quarter of 2013, which was below the floor of the target range for the year (3.0% ± 1 pp), had a slight effect on inflation expectations. The various measurements of expected price increases at horizons between one and five years were near or slightly below 3.0% between October and December.

In conclusion, economic growth in 2013 is expected to be is similar to what it was a year ago. The monetary policy action taken to date, which is designed to stimulate the momentum in aggregate demand, should help to place output in 2014 close to maximum capacity, without significant pressures on prices. The forecasts suggest that average annual inflation in 2014 would be higher than

Graph B
Banco de la República's Benchmark Interest Rate and Interbank Interest Rate (IIR)
2007-2013)[a/]



a/ The figures are for business days; the last figure is for January 17, 2014.
Sources: Office of the Financial Superintendent of Colombia and *Banco de la República*.

it was in 2013 and will continue to converge towards the long-term target (3.0%).

Having assessed the risk balance, the Board of Directors considered it appropriate to hold the policy interest rate at 3.25% in November and December (Graph B). In December 2013, the Board also announced *Banco de la República* would accumulate up to US$1 billion between January and March.

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INFLATION REPORT

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I. The External Context and Balance of Payments

The global economy continued to recover during the fourth quarter of 2013, due to momentum in the developed economies.

In 2014, the growth of Colombia's trading partners is expected to accelerate slightly compared to 2013.

Although the downside risks associated with the performance of the advanced countries have abated somewhat, other sources of uncertainty emerged in last weeks concerning recent developments in emerging market economies.

A slight increase in the current account deficit as a percentage of GDP is forecast for 2014.

A. THE INTERNATIONAL SITUATION

1. Real Activity

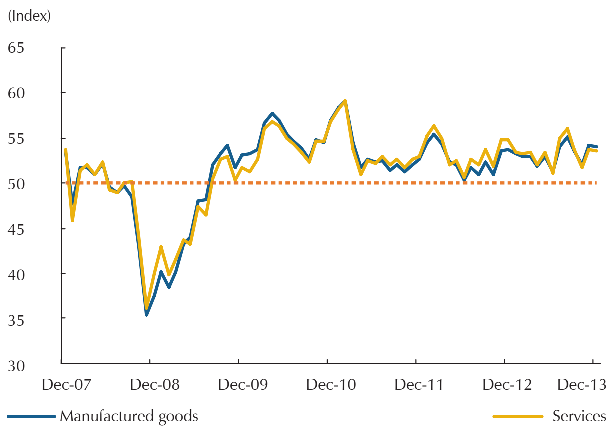
Global economy continued to recover during the fourth quarter of 2013 thanks to the momentum in the developed economies, with the United States leading the way. During the same period, the rates for manufacturing activity and global commerce performed well (Graph 1). The emerging market economies continued to grow at a higher rate than the advanced countries; however, the pace of their expansion continued to slow compared to that of previous years.

The global manufacturing and trade indices in the fourth quarter of 2013 were favorable.

Information up to the fourth quarter shows the United States economy maintained a favorable growth rate.[1] According to the latest estimate, gross domes-

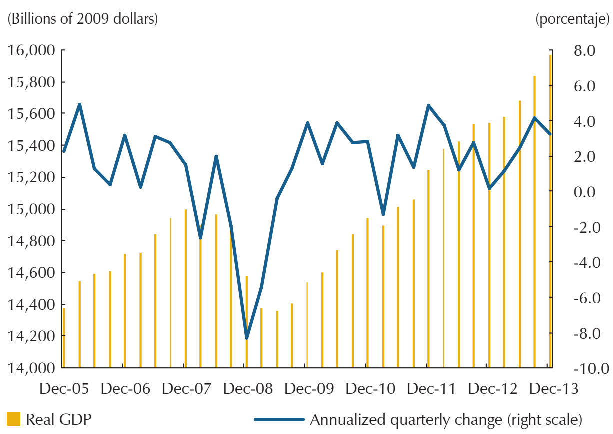
1 This information was published while this report was being written. Consequently, it was not taken into account in the forecasts presented here.

Graph 1
Global Productive Activity Indexes
(Purchasing Managers Index: PMI)



Source: Bloomberg.

Graph 2
Real GDP in the United States



Source: Bureau of Economic Analysis.

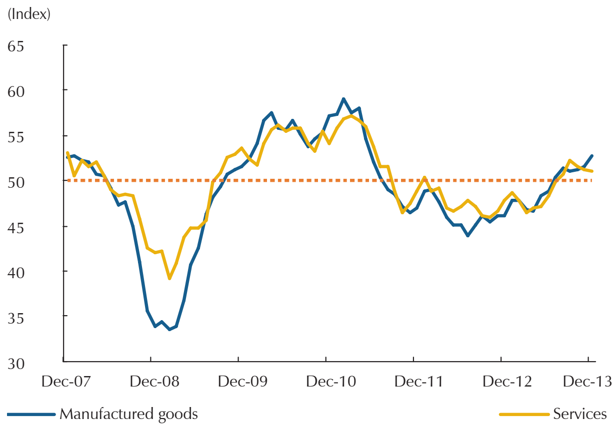
tic product (GDP) rose at an annualized quarterly (a.q.) rate of 3.2% in the last three months of the year (Graph 2). The expansion during this period is explained by the acceleration in household consumption and exports, as well as slower import growth. On the less favorable side, investment decelerated due to less of an increase in inventories and a drop in residential investment, while government spending shrank. Accordingly, growth in 2013 was 1.9%, which represents a slowdown from 2012, when the economy expanded by 2.8%. Importantly, one of the main causes of the reduction in growth was the negative contribution from government spending.

In this same period, consumer confidence rebounded after falling in past months as a result of fiscal uncertainty. Likewise, the figures at December showed a further decline in the unemployment rate; however, the pace of job creation slowed. Meanwhile, the housing market indicators performed better in recent months, after the slowdown during the third quarter, which coincided with the rise in long-term interest rates, after the announcement by the Board of Governors of the Federal Reserve System (Fed) concerning the onset of tapering.

With regard to fiscal policy, important agreements on the management of government finances were reached in the last two months; these reduced uncertainty in the medium term and lessened the contractionary impact of the fiscal adjustment on GDP. In this context, there will be no new automatic cuts in government spending during 2014, and the tax hikes would be less than in 2013. Finally, in the coming weeks, the Colombian Congress will debate the government debt ceiling once again. Analysts expect there will be fewer surprises in the negotiations this time around than was the case in previous episodes; so, any decision should not affect market confidence.

The information observed the euro area up to the third quarter shows its economy expanded 0.4% a.q. While this figure is lower compared to the one in the second quarter, when the region saw 1.2% a.q. growth, showing that the economy continued to expand at a slow pace. The positive growth during this period is due to expansion in the German economy and in several peripheral countries such as Spain and Portugal, despite the contraction of the GDP in France and Italy.

Graph 3
Euro Area Productive Activity Indexes
(Purchasing Managers Index: PMI)



Source: Bloomberg.

The figures on actual activity during the fourth quarter show the recovery would have been maintained in recent months. In this respect, retail sales and industrial production rebounded slightly in the last few months. Similarly, rates of business sentiment in the manufacturing and service sectors remained in expansionary terrain (Graph 3); however, the signs exhibited by business and consumer confidence were favorable. Preliminary information for the fourth quarter indicates economic growth was positive in Germany and Spain; in the case of the former, the rate of expansion is explained largely by the behavior of domestic demand.

In terms of financial integration in the region during the fourth quarter, discussions continued at a slow pace, and important announcements were made at the end of the year about how bank failures would be managed in the future. Nevertheless, other important issues were left pending for discussion in 2014.

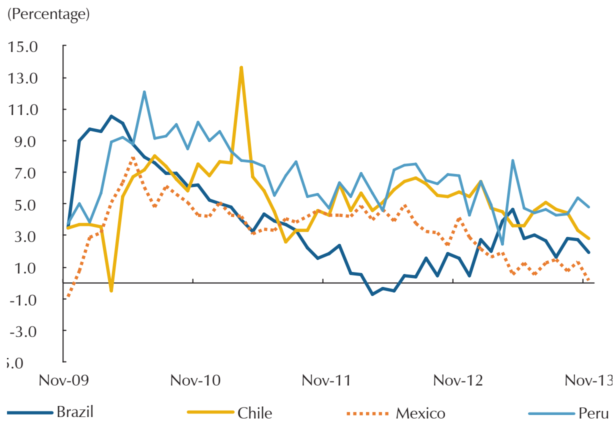
Despite the positive signs in the European economy, it is important to highlight that the region remains vulnerable, so much so that the unemployment rate is still at record levels (particularly in the economies of the periphery), financial markets remain fragmented, and lending activities continues to decline (although more slowly). High and prolonged levels of unemployment would be affecting labor productivity. This situation, in turn, would have direct implications for potential output. Likewise, the standstill in the financial markets is a drag on growth in the euro area, as it prevents domestic demand from being more buoyant. Finally, it is important to point out that the pace of recovery is mixed and in some countries, such as France, there is evidence that confidence has deteriorated sharply, which could impact its growth in the coming quarters.

As for the emerging economies, growth in China accelerated during the second half of the year due to an increase in investment, fueled by several public policy measures. With information for the fourth quarter, GDP growth came to 7.7%; this represents a slight decline from the third quarter, when the Chinese economy expanded by 7.8%. In relation to 2012, the economy kept its growth rate at 7.7%. Moreover, it is important to note that liquidity conditions in the interbank market tightened again towards the end of the year, reinforcing the intentions of the Chinese government to control credit growth particularly through shadow banking.

Despite positive signs in the European economy, the region remains vulnerable.

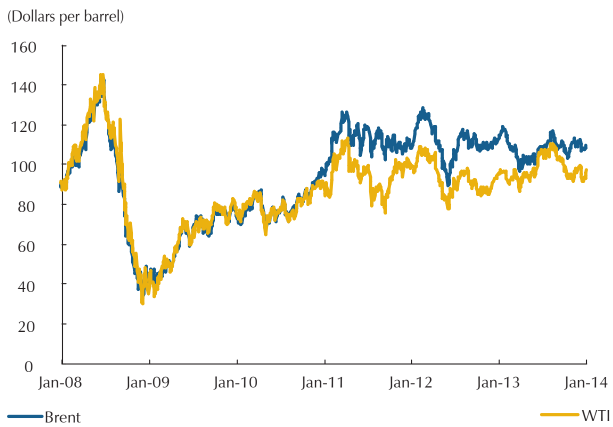
In the case of Latin America, the figures for the third quarter confirm that growth slowed in Brazil, Venezuela and Peru, while in Chile, Mexico and

Graph 4
Annual Growth in Monthly Economic Activity Indexes for Several Latin American Economies



Source: Datastream.

Graph 5
International Oil Prices (Brent and WTI)



Source: Datastream.

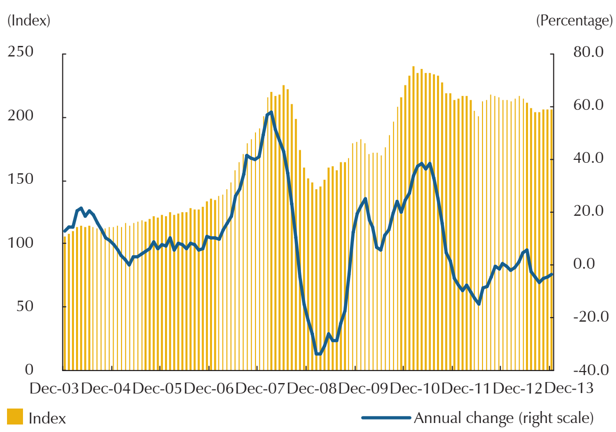
Colombia evidenced an improvement in economic activity. With the figures for the fourth quarter, actual activity weakened in Brazil, Chile and Mexico, while in Peru maintained its growth rate (Graph 4). Overall, the region's exports (in dollars) continued to weaken during the fourth quarter.

2. Commodity Prices, Inflation and Monetary Policy

International prices of the commodities exported by Colombia performed as was expected in the baseline scenario of the September edition of the *Inflation Report*. Accordingly, international prices for oil (Graph 5), coal and nickel remained relatively stable during the fourth quarter, while coffee prices continued to trend downward.

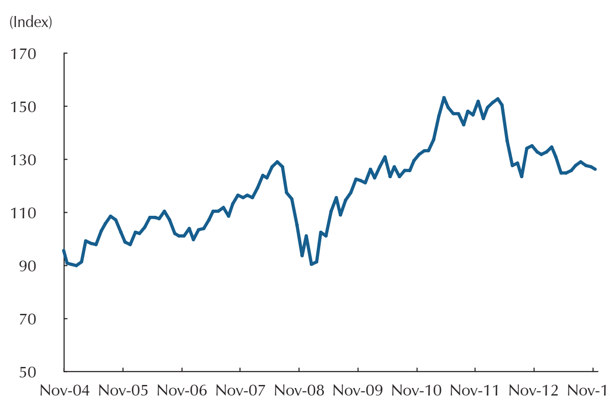
As for imported raw materials, those of agricultural origin showed no significant changes in the final months of the year and remained at levels below those observed in 2012 (Graph 6). In this context, the country's terms of trade stayed below the levels reached in 2011-2012 (Graph7).

Graph 6
International Food Prices



Source: Food and Agriculture Organization of the United Nations

Graph 7
Terms of Trade Index
(Commerce Methodology)



Source: *Banco de la República*

Inflation in the major developed economies stayed below the long-term targets set by their central banks.

Regarding inflation, the change in the general level of prices in the major developed economies remained below the long-term targets set by their central banks. In the particular case of the euro area, total and core inflation rounded out several quarters of decline and were below 1.0% in December. In its latest report on global perspectives, the International Monetary Fund (IMF) highlights deflationary risk as a new vulnerability for the recovery of the euro region. In Japan, however, prices continued to rise; this situation coincided with the implementation of stimulus measures by the country's economic authorities.

In terms of monetary policy, the major central banks continued their stimulus measures and, in the final months of the year, made important announcements about how these measures would evolve. Specifically, in December, the Fed announced it would begin to taper its monetary stimulus program as of January 2014, by ceasing to buy $ 10 billion (b) in assets, distributed equally between US treasuries and MBS (mortgage-backed securities). The Fed also reiterated its commitment to keep interest rates at their current levels, at least until 2015, and confirmed that the future course of monetary policy would be dependent on the performance of the economy, particularly the job market and inflation. At the Fed's January meeting, asset purchases were reduced by another US$10 b, which represents no change from what was announced in late 2013. The recent announcements sought to offer greater transparency to financial markets, so as to avoid an increase in the overall uncertainty. Moreover, in November, the European Central Bank (ECB) cut its benchmark rate and pledged to keep interest rates low, as long as the current economic activity continues weak.

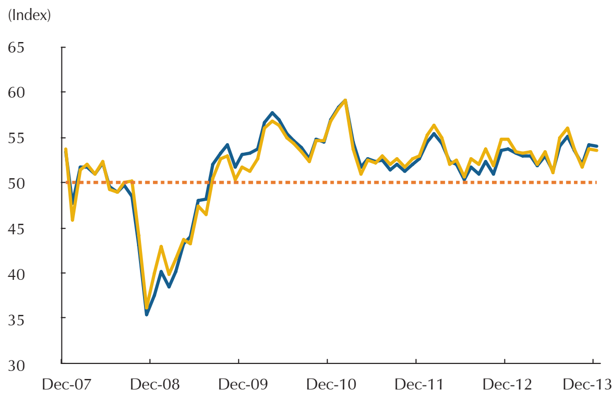
The inflation outlook for the emerging economies remained mixed. In countries such as Chile, Colombia and Peru, inflation was relatively low and, in some cases, was situated in the lower range of the target set by their central banks. In a context of low inflation and economic slowdown, the monetary authorities in Chile and Peru reduced their intervention rates in November. Meanwhile, other economies, such as Brazil, India and Indonesia, continued to exhibit increasing pressures, which prompted to their central banks to raise policy rates in recent months.

In December, the Fed announced it would begin to taper its monetary stimulus program as of January 2014, when new measures were adopted.

3. Financial Markets

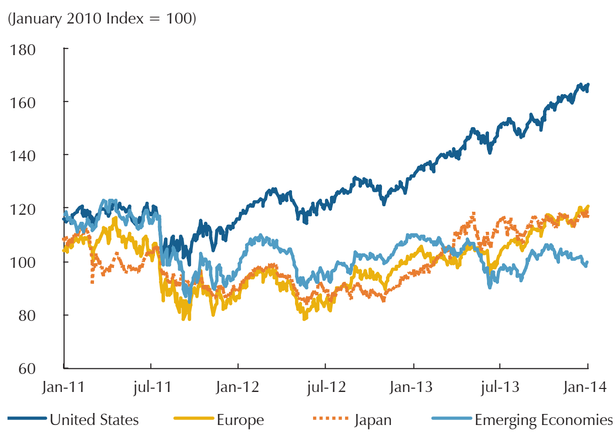
In the second half of the year, the performance of financial markets was dependent on the announcements about the evolution of monetary policy in the United States. Long-term interest rates in the US economy rose rapidly as of May 2013 and up to September; however, in September, they reversed their upward trend and declined until mid-November. While the announcements on the start of tapering pushed up long-term rates, once again, the

Graph 8
Interest Rates on 10-year US Treasuries



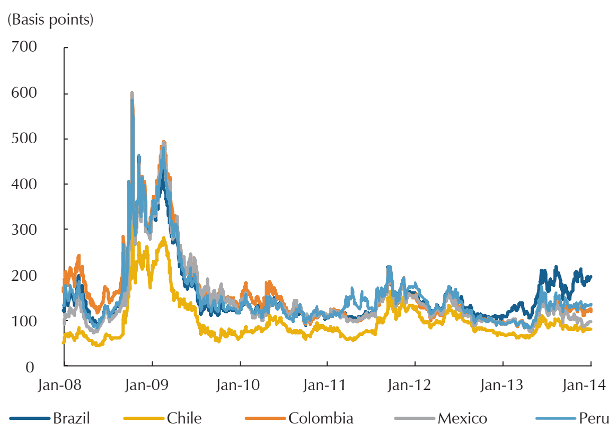
Source: St. Louis Federal Reserve

Graph 9
Global Stock Indexes



Source: Bloomberg.

Graph 10
Five-year Credit Default Swaps (CDS)for Several Latin American Countries



Source: Bloomberg.

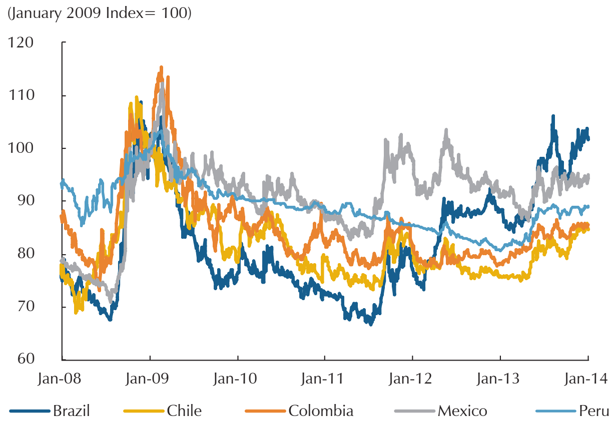
increase was less than that observed previously, and January witnessed new declines (Graph 8). According to analysts, interest rates should rise gradually, as the stimulus program is tapered.

In terms of stock market activity, 2013 was favorable for the developed economies, particularly the United States, where new record highs were achieved. However, the uncertainty created by that country's monetary policy, coupled with the slowdown in the major emerging economies, negatively affected the stock markets in this last group of countries, leading, on average, to a drop in equity prices during 2013 (Graph 9).

The Fed's announcements in recent months helped to ease uncertainty about the future of monetary policy in the United States and had a positive effect on capital inflows to emerging market economies, which stabilized in the final months of 2013, although at a lower level compared to May. In this context, the risk perception to Latin American economies remained relatively stable in the final quarter, although at a higher level than that observed in the first half of the year (Graph 10). One exception was Brazil, where economic weakness and declining confidence affect growth expectations for the coming quarters; according, there was more of an increase in its risk premium. With the exception of Mexico, the region's currencies devaluated in October, but stabilized by the end of the quarter (Graph 11).

In the final weeks of January, the emerging market economies saw their currencies depreciate sharply against the dollar and falls in their stock market indexes and government bond prices. The continuation of tapering by the Fed, at a time when fewer prospects for growth in some of economies are evident, seems to have increased the risk perception. The pressure has been more pronounced in countries with more external vulnerability; namely, high inflation, large current account deficits, declining international reserves and considerable dependence on short term capital flows. In this context, the central banks of Brazil, Turkey,

Graph 11
Exchange Rate Indexes for Several Latin American Countries



Source: Bloomberg.

India and South Africa raised their policy interest rates mainly to reduce exchange rate pressures.

4. Forecasts by *Banco de la República*'s Technical Staff

Generally speaking, the economic growth of Colombia's major trading partners in 2013 evolved according to the expectations outlined in the September edition of the *Inflation Report*. However, it is important to highlight that some economies performed more favorably, as was the case of the United States, while others were below the forecasts, as in most of the Latin American countries (Table 1).

The baseline scenario for 2014 envisions a re-composition in the GDP growth forecast for Colombia's trading partners. Compared to the projections in the September report, the expectation now is for more recovery in the developed economies and lower growth rates in emerging market economies.

Table 1
Growth Forecasts for Major Trading Partners

Growth forecasts for trading partners	2012	Forecasts for 2013 Scenario			Forecasts for 2014 Scenario		
		Minimum expected	Baseline	Maximum expected	Minimum expected	Baseline	Maximum expected
Main partners							
United States	2.8	1.7	1.8	1.9	1.6	2.8	3.5
Euro Area	(0.7)	(0.5)	(0.4)	(0.3)	(0.4)	1.0	1.5
Venezuela	5.6	1.0	1.5	2.0	(2.0)	1.0	2.0
Ecuador	5.1	3.3	3.8	4.3	3.0	4.0	5.0
China	7.7	7.6	7.7	7.8	6.5	7.4	8.0
Other partners							
Brazil	1.0	2.0	2.3	2.6	1.7	2.6	3.5
Peru	6.3	4.7	5.0	5.3	4.5	5.5	6.5
México	3.7	1.0	1.3	1.6	2.5	3.5	4.5
Chile	5.6	4.1	4.3	4.5	3.2	4.2	5.2
Total trading partners (non-traditional trade-weighted)	**3.5**	**2.4**	**2.7**	**3.0**	**1.8**	**3.1**	**4.0**
Developed countries[a/]	**1.4**		**1.3**			**2.2**	
Emerging and developing countries[a/]	**4.9**		**4.7**			**5.1**	
Total worldwide[a/]	**3.1**		**3.0**			**3.7**	

a/ IMF forecasts at January 2014
Source: Calculations by *Banco de la República.*

Expectations for 2014 are acceleration in the growth of the developed economies and less growth in emerging countries.

In the United States, the acceleration in growth would be explained by a fiscal adjustment with less of impact on GDP than was the case in 2013. Likewise, household consumption and residential investment would continue to contribute positively to that expansion. This situation, in turn, would be bolstered by a more dynamic external sector. In this scenario, the normalization of monetary policy is expected to continue gradually, and its impact on long-term interest rates and on financial markets is expected to be relatively low. If the economy behaves as predicted by the Fed, tapering of Quantitative Easing 3 should be finished in the second half of the year, which would lead to a gradual increase in market interest rates. However, as the Fed announced, its benchmark interest rate is expected to remain between 0% and 0.25% throughout 2014 and in part of 2015.

For its part, the euro area continues to recover at a slow pace, bolstered by an increase in business and consumer confidence, as well as an expansionary monetary policy and fewer tax adjustments. Recent reductions in long term interest rates of government bonds of peripheral countries also would relieve pressures on the fiscal front. Similarly, the external sector should contribute positively to growth in the region. While further expansion is expected compared to 2013, the recovery in the region is likely to be mixed, led by Germany and to a lesser extent by several countries on the periphery.

In terms of the emerging countries, the slowdown in the Chinese economy is expected to continue. A slight build-up in several Latin American countries, such as Mexico, Brazil and Peru, is anticipated. The recovery in the developed economies and the return to normal after certain supply shocks would explain the improved performance of these countries compared to 2013. Finally, in the case of Venezuela, very low growth is forecast due to structural problems.

As in previous editions of this report, the central forecast continues to have downside risks that are not negligible. For example, the evolution of monetary policy in the United States could affect productive activity in that country and in others, beyond what is expected. However, the probability of some of these risks materializing has been reduced compared to the estimate in the previous edition of the *Inflation Report*. Therefore, the recent progress on fiscal issues in the United States reduced the possibility of another federal government shutdown, avoiding a negative shock to market confidence.

The growth of Colombia's major trading partners in 2014 continues to face downside risks that are not negligible.

With respect to the euro area, financial vulnerabilities of the region persists, as does its languishing job market, which could be affecting labor productivity. Financial fragmentation and the standstill in lending are a drag on growth in the region. In this scenario, the banking integration agenda might be interrupted or delayed, a situation that could hinder new financing terms for the countries on the periphery.

As for the emerging economies, several financial risks have been spotted in China, as has macroeconomic stability in countries with large current account deficits, declining levels of international reserves, and high dependence on short-term capital inflows. An unfavorable situation in these countries could impact other emerging economies through a generalized increased risk perception.

Finally, as for international prices of the goods exported by Colombia, the central forecast points to a slight drop in oil prices during 2014, given better supply conditions. In the case of coal and nickel, somewhat of rebound is expected, while coffee prices would be similar to those observed in 2013. These prices should fall in a high risk scenario (Table 2).

Table 2
Reference Price Forecasts for the Commodities Exported by Colombia

Major products	2013	Forecasts for 2014 Scenario		
		Minimum forecast	Baseline forecast	Maximum forecast
Colombian coffee (*ex dock*; dollars per pound)	1.48	1.10	1.50	1.90
Brent crude (dollars per barrel)	108.7	95	105	110
Coal (dollars per ton)	88.0	80	90	100
Nickel – London exchange (dollars per ton)	15,091	13,779	15,747	17,716
Gold[a/] (dollars per troy ounce)	1,411	1,300	1,150	1,000

a/ This is assumed to be a haven value, because the price of gold increases when there is more uncertainty (a pessimistic scenario).
Source: Bloomberg; Calculations by *Banco de la República*.

B. BALANCE OF PAYMENTS

In the course of 2013 up to September, Colombia accumulated a current account deficit equal to 3.4% of GDP (US $ 9,295 m), which is slightly higher with respect to the same period last year (3.3% of GDP, US $ 8,801 m). The increased deficit was associated with a lower trade surplus compared to 2012, reflecting a 3.3% annual decline in total exports in dollars, while total imports accumulated a 0.2% drop during the same period. This result was offset, in part, by a reduction in the deficit for non-factor services and factor income, given fewer profit transfers from coal mining. Meanwhile, net income transfers continued near the levels witnessed in 2012.

Financing the deficit generated a capital and financial account surplus of US $ 15,008 m (5.5% of GDP), which is more than the surplus exhibited a

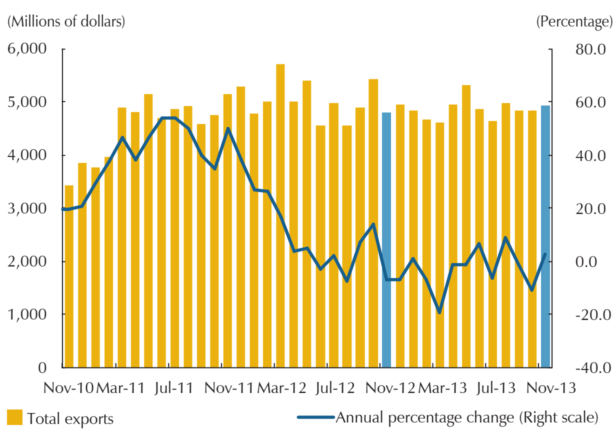
A moderate increase in the current account deficit is expected in 2013 compared to the deficit the year before.

year earlier (US $ 11,991 m, i.e. 4.5% of GDP). Foreign direct investment (FDI) is still the main source of external funding, having increased 13% annually to US $ 13,251 m by September. Added to this is the growth in capital inflows from foreign borrowing, mainly by the private sector, and the resources from portfolio investment, especially in long-term government bonds. This income was offset by increased investment abroad by Colombians, which registered US $ 3,405 m in outflows by the third quarter of 2013, as well as net outflows associated with portfolio investment and short-term external debt.

A moderate rise in the deficit is forecast for the end of 2013, compared to what it was last year. According to the baseline scenario, the external deficit would increase from 3.3% of GDP in 2012 to 3.4% in 2013, with a range of 3.3% to 3.5%. This outcome implies a lower merchandise trade surplus, given an annual reduction in total exports in dollars, which is a reflection of lower prices for export commodities, less growth for our trading partners compared to the figure on record for 2012, and shocks to coal production during the year, coupled with total imports that remain at the same level as in 2012.

In fact, the available information on foreign trade in goods during October-November 2013 indicates the trade balance continued to deteriorate. During that period, total exports in dollars fell by an average of 4.6% over the previous year (Graph 12), while imports FOB (free on board)[2] rose 0.9% in annual terms (Graph 13). This confirms a lower trade surplus for the full year, due mainly to the supply shocks that affected mining exports (shaded section, p. 27).

Graph 12
Total Exports
(Month)

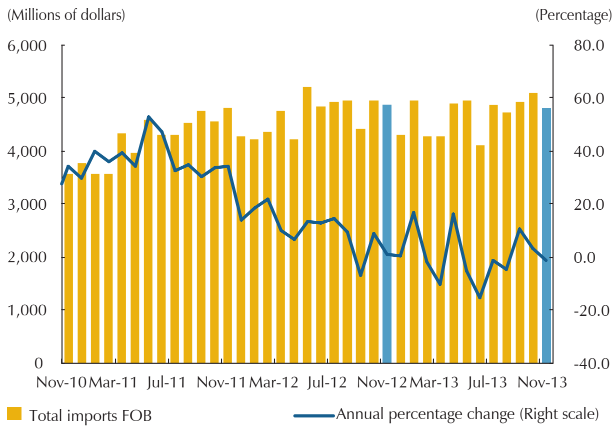


Source: DANE; Calculations by *Banco de la República*.

The estimate of a lower trade surplus would be offset partly by net outflows of factor income; these would be less than in 2012, given the reduced value of mining exports, which are the main source of remittances of profits and dividends. Moreover, net transfer income would have remained at levels similar to those of the previous year, consistent with a modest recovery in workers' remittances. At September, these remittances were up by an

2 Unlike the measurement used for the balance of payments, which takes into account imports FOB (free on board), the GDP calculation based on the national accounts considers imports CIF (cost, insurance and freight), which include the value of freight and insurance. The average total value of the latter, in dollars, came to US $ 5,191 million in October-November 2013, which amounts to an annual increase of 0.5%.

Graph 13
Total Imports FOB
(Monthly)



Source: DANE; Calculations by *Banco de la República*.

annual rate of 3.1%; in the October-November period, they fell by 2.5%, on average.

In terms of financing the 2013 deficit, it is estimated that FDI was the main source of funding for the capital and financial account, and would have reached levels superior to those observed in 2012 (about US $ 16,800 m), thanks to stable investment in the oil sector and more dynamic performance in the other investment sectors. Even so, the net proceeds from FDI would be less than those witnessed in 2012, given more Colombian investment abroad (CIA)resulting from the accumulation of assets outside the country, primarily in sectors such as financial, energy and food. The forecast for 2013 also contemplates an increase in external funding compared to the previous year, for both the private and public sectors; the latter corresponds more to external borrowing by the central government (CNG) and Ecopetrol (Table 3).

The available information on capital flows related to the data on the Foreign Exchange Balance[3] shows significant inflows of private capital in 2013 from a year earlier, although at a slower pace in the fourth quarter compared to previous quarters. These inflows are fueled primarily by larger net FDI flows and, to a lesser extent, by financial investment or portfolio resources.

The forecast for the balance of payments in 2014 implies a deficit in the current account, which could stand between 3.2% and 3.9% of GDP.

The balance of payments forecast for 2014 implies a current account deficit that could be between 3.2% and 3.9% of GDP, with a baseline scenario higher than the one projected for 2013. This outcome is consistent with improved international prospects in a scenario of economic recovery for the advanced economies, driven largely by better-than-expected performance of the United States economy and the end of the recession in the euro area. Coupled with what should be a limited variation in international prices (as mentioned in the previous section), this would imply an increase in the value of total exports , thanks to added sales of the country's major export products (oil, mining products and coffee), given the growth in domestic production, as well as better market conditions for non-traditional exports. The recovery in exports would be accompanied by further growth in imports compared to the figures on record for 2013, given slightly more domestic demand than the year before, as explained in Chapter II of this report.

3 Although the capital flows in the Foreign Exchange Balance do not correspond exactly to those in the balance of payments, since the former refer to the entry and outflow of foreign exchange, they do offer some idea of the possible trend.8

Table 3
Balance of Payments Forecast for Colombia
(Baseline or most likely scenario)

	(Millions of dollars)				(Percentage of GDP)[d/]			
	2010	2011 (pr.)	2012 (pr.)	2013 (proj.)	2010	2011 (pr.)	2012 (pr.)	2013 (proj.)
I. Current account	(8,919)	(9,840)	(12,124)	(12,623)	(3.1)	(2.9)	(3.3)	(3.4)
A. Non-factor goods and services[a/]	(1,343)	1,367	(735)	(2,310)	(0.5)	0.4	(0.2)	(0.6)
B. Factor income	(12,024)	(16,042)	(15,968)	(14,879)	(4.2)	(4.8)	(4.3)	(4.0)
C. Transfers	4,448	4,834	4,579	4,565	1.5	1.4	1.2	1.2
II. Capital and financial account	11,763	12,976	17,243	19,358	4.1	3.9	4.7	5.1
A. Private sector: net direct investment and other capital flows[b/]	6,941	10,791	13,991	13,343	2.4	3.2	3.8	3.5
B. Public sector	4,821	2,184	3,253	6,015	1.7	0.6	0.9	1.6
III. Errors and omissions	292	609	303	453	0.1	0.2	0.1	0.1
IV. Change in gross international reserves[c/]	3,136	3,744	5,423	7,188	1.1	1.1	1.5	1.9

(p.): preliminary and (fcst.): forecast
a / Includes the balance of nonfactor goods and services and special trading operations.
b / Includes net flows of foreign direct investment, portfolio investment and net external borrowing operations.
c / The change in gross international reserves considers contributions to the Latin American Reserve Fund (FLAR).
d / The figure for real GDP growth in 2013 is an estimate developed by the Division of Economic Studies.
Source: *Banco de la República*.

In addition to this forecast for the trade balance, it is estimated that net outflows of factor income might increase moderately in 2014, due to stabilization in the profits remitted abroad by the foreign-capital-intensive sectors. Also, current net transfers are expected to perform similarly to the forecast for 2013, with a modest recovery in workers' remittances, bolstered by increased growth in the economies where these resources are originated.

The current account deficit forecast for 2014 would continue to be financed largely with FDI inflows.

This deficit would continue to be financed mainly with FDI inflows, which are forecast at levels comparable to those of the year before, backed by the anticipated effects of the various FTAs signed by Colombia. This would be accompanied by fewer resources from external borrowing, especially in the public sector. Finally, it is important to point out that the exercise to forecast the balance of payments reflects a change in gross international reserves that is consistent with the intervention announced by *Banco de* *la República*[4] and the financial returns associated with it. This balance of payments forecast for 2014 would be compatible with less pressure toward appreciation of the exchange rate.

4 Considers up to $ 1,000 m in purchases of foreign exchange between January and March 2014.

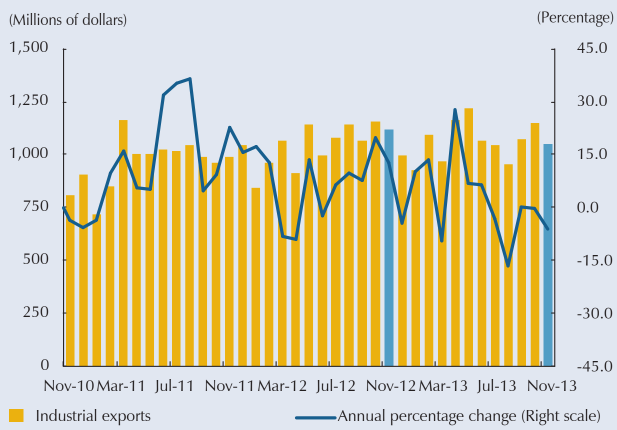
EXPORTS AND IMPORTS IN US DOLLARS DURING THE FOURTH QUARTER OF 2013

The performance of exports in dollars during October-November reflects the general decline in foreign sales of all product groups. Mining exports during that period were down 5.1% annually, agricultural exports fell 3.1% and all others, 3.2%. The drop in mining exports is associated with reduced sales of gold, ferronickel and coal, given lower export volumes. In contrast, exports of oil and petroleum by-products during that two-month period rose 21.7% annually, on average, mainly because of larger export volumes. As for exports of agricultural origin, the reduction during October-November reflects fewer foreign sales of bananas and flowers. This was offset, in part, by an increase of 7.7% in coffee exports in dollars. A highlight in this respect was the important growth in the volume of coffee beans exported (49%) (Annual average for that period).

The drop in industrial exports[11] between October and November (Graph A) reflects fewer sales to Ecuador, Venezuela and the other destinations, with average annual reductions of 0.6%, 13.1% and 2.1 % for the two-month period, in that order. Sales of industrial products to the United States rose 3.2% annually during the same period (Graph B).

1 These exports exclude petroleum and its by-products, coal, ferronickel, gold, coffee, bananas and flowers, and account for 23% of total exports during that period. Industrial exports account for 95% of this group.

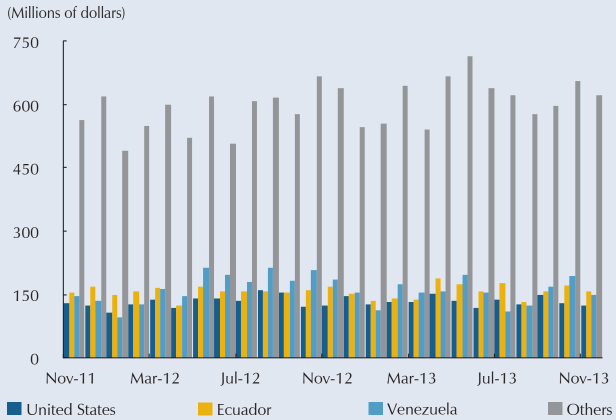
Graph A
Industrial Exports and Others[a/]
(Monthly)



a / No petroleum or by-products thereof, coal, ferronickel, gold, coffee, bananas or flowers. Includes other mining and agricultural goods.
Source: DANE; Calculations by *Banco de la República*.

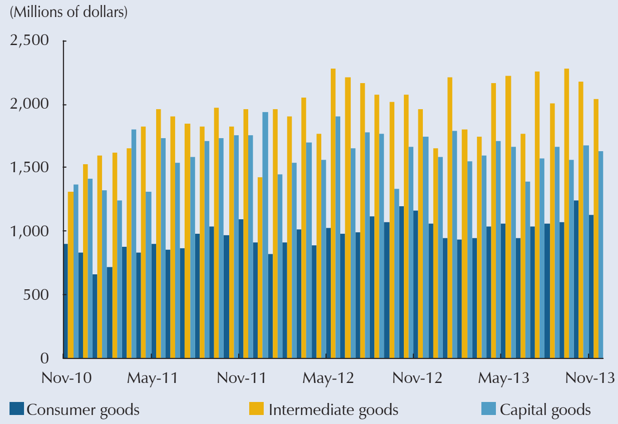
On the other hand, the increase in imports FOB in dollars during October-November is due primarily to an increase of 4.4% in average annual purchases of intermediate goods, thanks to added imports of fuel and related products. In addition, imports of consumer goods also rose slightly during the same period (0.4% annually, on average). Purchases of capital goods continued to decline during October-November, falling 2.9% as a result of fewer imports of building materials, capital goods for agriculture and transport equipment (Graph C).

Graph B
Non-commodity Industrial Exports to the United States, Ecuador, Venezuela and All Other Destinations[a/]
(Monthly)



a / No petroleum or by-products thereof, coal, ferronickel, gold, coffee, bananas or flowers. Includes other mining and agricultural goods.
Source: DANE; Calculations by *Banco de la República*.

Graph C
Imports by Type (FOB)
(Monthly)



Source: DANE; Calculations by *Banco de la República*.

Box 1
THE EFFECT THAT TAPERING MIGHT HAVE ON THE BALANCE SHEETS IN COLOMBIA'S PRODUCTIVE AND FINANCIAL SECTOR

Technical Office

The expansive monetary policy adopted in the United States and in other developed countries in response to the global financial crisis in 2008-2009 not only helped to restore financial markets functioning and to reduce the cost of long-term financing in those countries, it also had an important impact on the emerging economies (EE) through a variety of mechanisms. Broad international liquidity and historically low interest rates motivated capital inflows to the EEs, reduced their risk perception, accentuated the credit cycles, exerted upward pressure on the asset prices, and heightened currency appreciations.

As of mid-2013, when the Federal Reserve began to announce plans to eventually taper its financial asset buying program once the United States economy showed clear signs of recovery, long-term interest rates in that country rose significantly, accompanied by a great deal of volatility in global financial markets, including Colombia. Tapering, which initiated in December 2013, could lead to a return to normal in international financial conditions. If so, foreign investors faced with reduced prospects for international liquidity might begin to rebalance their portfolios. This rebalancing might mean an outflow of capital from the emerging economies, which could result in higher costs for external borrowing, a correction in asset prices and depreciation of their currencies.

In this situation, it is relevant to ask what effect exchange-rate depreciation and higher interest rates would have on Colombia's productive and financial sectors. The Bank's technical staff analyzed the currency mismatches of a sample of firms in the productive sector and the effect sharp depreciation of the peso could have on their balance sheets. The financial system's exposure to companies in the productive sector that are particularly sensitive to the exchange rate was analyzed through simulations of scenarios involving domestic public debt (TES) devaluation and illiquidity (which could happen if financial markets overreact) to see how their balance sheets would be affected. Last of all, a stress test was performed. The main results of these exercises are described in this section.

In the case of firms with operations in currencies other than the Colombian peso, a currency mismatch[1] implies financial risk, since periods of excessive volatility in the peso against foreign currencies affects balance sheet valuation, cash flow, earnings and, most likely, the company's investment and growth. When the domestic currency depreciates, the debt/asset ratio increases, as does service of the debt in foreign currency in proportion to income. Peso depreciation also makes it more costly for agents in the economy to access sources of external funding. Since the balance of the private external debt in Colombia has increased in recent years, this could imply vulnerability for Colombia, if the agents who have borrowed have currency mismatches on the liability side, or if their expectations for loan refinancing are not met.

To analyze this situation in the Colombian productive sector, it was determined that a firm has a foreign currency mismatch (F/C) if its liabilities in F/C are greater than its assets in F/C. In August 2013, a study of a sample of 6,979 firms in the productive sector, for which financial statements and information on assets and / or liabilities in foreign currency are available, showed 2,883 companies had F/C mismatches (40% of the sample). In general, that mismatch is the result of an increase in the amount of debt contracted (mostly long term), combined with relatively low and stable assets in F/C and limited use of foreign currency hedging instruments. By in large, the firms with mismatches operate in the transport and communication sectors, and in industry and commerce. Moreover, there are 1,615 companies in the sample with a mismatch that does not exceed one million dollars in value.[2]

1 A currency mismatch is the difference between assets and liabilities in foreign currency (F/C), or between income and expenditure in F/C, or a combination of both.

2 Calculation of the mismatch includes only assets in F/C that are registered with *Banco de la República* (unrecorded assets, such as free accounts, are not included) and currency hedging by domestic agents (hedging by the company or the parent company with foreign agents are not included).

A look at the sample of firms with mismatches in 2013 showed that 15% depreciation would result in a situation where 77% would see their assets devaluate by less than 10%, (this group accounts for 42% of the value of the mismatch in the sample). However, 23% would have posted devaluations above 10% (these account for the remaining 58% of the mismatch). Therefore, although a percentage of productive-sector firms have currency mismatches, their risk in the event of devaluation may be limited.

When the financial sector is highly exposed to productive firms with relevant currency mismatches, financial stability becomes more vulnerable to exchange-rate shocks. The estimates developed by the technical staff show the Colombian financial system is not highly exposed to firms of this type, since its exposure represents about 5.0% of the total commercial loan portfolio to June 2013. Additionally, in quantifying the effects on the indicators of the risk posed to the financial system by an unexpected 9.0% and 38.8% depreciation, no significant impact was found at the aggregate level and per institution, since the loans taken out by the exposed firms represent very little on the balance sheets of financial institutions.

As mentioned earlier, the normalization of monetary policy in the United States could lead to an increase in international interest rates that would be transmitted to interest rates in Colombia. This effect would decrease the prices of government bonds (TES), affecting the balance sheets in the financial system.

When analyzing market risk with respect to the TES portfolios, the technical staff found that, with a parallel increase of 400 bp[33] in the yield curve for government bonds, no institution would have to exhaust its additional capital to cover its losses.[44] It also found that the shift towards shorter duration observed between April and December left institutions better prepared to deal with possible shocks, such as the one that might come from tapering the monetary stimulus program in the United States economy. It is important to point out that this analysis does not include the other assets in the investment portfolios of financial institutions.

Overreaction by the financial markets to changes in the stance of US monetary policy could reduce liquidity. A scenario based on the behavior of the components of the liquidity indicator during the weeks following the announcements by the Federal Reserve concerning the possible tapering of quantitative easing in May 2013 was simulated to measure this risk in the Colombian financial system. The results of the exercises performed by the technical staff show none of the banks or financial corporations would present liquidity levels below the regulatory minimum.

Finally, a stress test was conducted based on the methodology proposed by Cihák (2007)[55] which simultaneously considers the impact on the solvency of financial institutions stemming from an increase in credit risk, interest rate risk, exchange risk and liquidity risk, all including possible interbank contagion. It was found that no institution would need additional capital to comply the regulatory capital-adequacy ratio (9.0%).

In conclusion, these results show the productive sector and the financial sector could withstand a scenario with higher international interest rates and sharp depreciation, which could be the product of overreaction by the financial markets before the Fed's tapers its monetary stimulus program. However, it is important to clarify that these exercises have limitations; for example, they do not incorporate the indirect effects or second-round effects tapering could have on the economy.

3 This shock is suggested in the *Financial Stability Report* and assumes a very strong reaction.

4 The amount of capital a bank would have in excess of its regulatory capital.

5 Cihák, M. (2007). "Introduction to Applied Stress testing", IMF Working Paper 07/59.

II. Domestic Growth: the Current Situation and the Short-Term Outlook

In the third quarter of 2013, the Colombian economy grew 5.1% annually. This figure is at the top of the forecast range outlined in the previous *Inflation Report*.

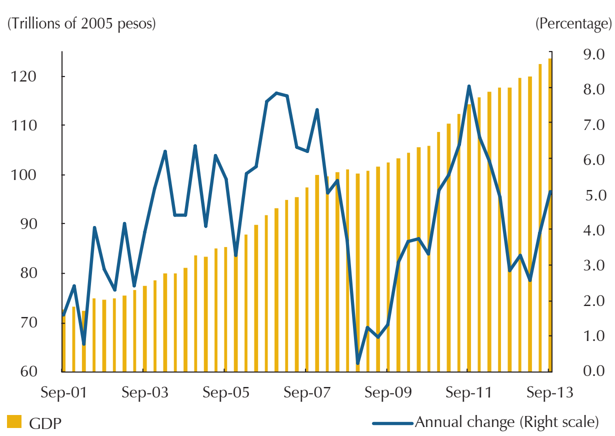
During that period, growth was bolstered mainly by investment. Consumption remained favorable and close to its historical average.

In the fourth quarter, the Colombian economy would have continued to expand at a higher rate than during the first half of the year.

A. GDP-THIRD QUARTER 2013

Colombia's GDP expanded at an annual rate of 5.1% during the third quarter of 2013 (Graph 14), as reported by the National Bureau of Statistics (DANE). This represents an acceleration compared to the records for the first half of the year and is at the top of the forecast range outlined in the previous edition of the *Inflation Report*. Growth between quarters came to 1.1%.

Graph 14
Gross Domestic Product
(Seasonally adjusted)



Source: DANE; Calculations by *Banco de la República.*

According to DANE, this success in terms of economic growth was due to an increase in domestic demand during that period, which rose 6.0% annually, the highest rate observed in the last four quarters (Table 4). The momentum in this item was driven largely by investment performance, although the increase in domestic consumption was favorable as well. The outstanding element in the first case was construction; in the second, it was government end consumption.

Table 4
Real Annual GDP Growth, by Type of Spending

	2012				2012	2013			Contribution to annual growth (Q3 2013) (Percentage points)
	Q1	Q2	Q3	Q4	Full year	Q1	Q2	Q3	
Total consumption	**5.4**	**4.1**	**4.5**	**5.2**	**4.8**	**4.0**	**4.6**	**4.4**	**3.6**
Household consumption	5.7	3.9	4.4	4.9	4.7	3.6	4.3	4.0	2.6
Non-durable goods	5.8	2.3	3.4	3.0	3.6	3.0	4.0	3.4	0.7
Semi-durable goods	13.7	7.6	7.7	7.3	9.0	3.1	6.3	5.6	0.4
Durable goods	-5.9	2.1	4.1	20.3	4.7	1.7	4.5	5.5	0.2
Services	5.9	4.6	4.5	4.1	4.8	4.1	4.2	3.9	1.3
Government end consumption	4.2	4.8	5.0	6.4	5.1	4.6	5.4	5.7	0.9
Gross capital formation	**10.0**	**14.5**	**1.1**	**4.0**	**7.3**	**1.9**	**-1.7**	**10.8**	**2.9**
Gross fixed capital formation	10.1	13.7	2.7	4.5	7.6	3.1	0.7	11.0	3.0
Agriculture, forestry, hunting and fishing	4.2	2.4	1.0	0.9	2.1	-3.1	-1.9	-1.3	(0.0)
Machinery and equipment	13.1	8.9	5.4	4.7	7.9	0.6	4.1	3.0	0.3
Transport equipment	18.0	16.8	-10.4	-14.1	0.9	-10.8	-13.5	-6.8	(0.2)
Construction and buildings	2.1	16.8	-12.2	13.6	4.8	10.1	8.6	26.7	1.4
Civil works	8.6	9.5	8.5	1.1	6.8	7.8	-2.5	18.2	1.5
Services	9.9	12.0	-6.6	8.9	5.9	2.2	3.2	3.5	0.0
Domestic demand	**6.2**	**6.8**	**3.7**	**3.0**	**4.9**	**3.5**	**3.1**	**6.0**	**6.5**
Total exports	**8.1**	**5.0**	**5.5**	**0.0**	**4.6**	**-2.4**	**7.8**	**1.9**	**0.3**
Total imports	**13.2**	**11.2**	**9.3**	**3.1**	**9.1**	**-0.2**	**1.3**	**2.9**	**(0.8)**
GDP	**5.9**	**4.9**	**2.8**	**3.3**	**4.2**	**2.6**	**3.9**	**5.1**	**5.1**

Source: DANE; Calculations by *Banco de la República*.

The rate of growth in private consumption was similar to the average witnessed since 2001 (4.0%). A breakdown of the different components of household consumption shows good growth (although less than in the second quarter) in non-durables, semi-durables and services.

The expansion of private consumption occurred at a rate similar to the average since 2001 (4.0%).

The different items that make up investment expanded at higher rates than those reported by DANE in the past. The largest contribution came from the building-construction category, which rose at rates that were around 30%. In turn, the increase civil-works construction surpassed the figures on record for the last six quarters. Significantly, the growth in investment also contributed to that destined for the purchase of machinery and equipment.

The highest growth rates were in the areas of construction, agriculture and mining. Industry contracted in annual terms.

The momentum in foreign trade items was mixed. The rate of export growth dropped sharply compared to the observed behavior for the second quarter and the average for the first half of the year. This was mainly due to the various supply shocks that occurred in the coal sector throughout the quarter. In the case of imports, slightly higher growth rates were observed, following what was reported by DANE regarding the momentum in foreign purchases of capital goods and raw materials, in real terms.

On the supply side, higher growth rates was witnessed in construction, agriculture and mining, respectively (Table 5). Also, there were major increases in activities such as commerce, financial services, and social, community and personal services, which contributed substantially to growth. In contrast, the only sector to show an annual decline was industry (-1.0%).

The most dynamic sector of the Colombian economy during the third quarter of 2013 was construction; 21.3% growth confirms its good performance so far this year (5.8% in the first half of 2013). A breakdown of this item shows there was a similar contribution to growth from both civil works

Table 5
Real Annual GDP Growth, by Branches of Economic Activity

Branches of activity	2012				2012 Full Year	2013			Contribution to annual growth (Q3 2013)
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	
Agriculture, forestry, hunting and fishing	2.0	2.9	3.5	1.8	2.6	4.1	7.6	6.6	0.4
Mining and quarrying	13.6	8.7	0.7	1.9	6.0	1.6	4.1	6.1	0.5
Manufacturing industry	1.0	0.3	(1.0)	(2.4)	(0.5)	(3.9)	1.3	(1.0)	(0.1)
Electricity, gas and water	4.1	3.5	3.4	3.1	3.5	3.6	4.8	3.7	0.1
Construction	8.2	12.0	(0.1)	5.5	6.3	9.1	2.5	21.3	1.3
Buildings	8.3	14.9	(10.5)	12.0	5.9	9.9	7.7	24.8	0.6
Civil works	8.5	9.9	8.5	1.0	6.9	8.2	(1.9)	18.6	0.7
Commerce, repairs, restaurants and hotels	5.3	4.4	3.2	3.4	4.1	2.9	4.1	4.3	0.5
Transport, storage and communication	6.6	3.8	3.1	3.1	4.1	2.3	3.0	2.9	0.2
Financial, real estate and company services	7.1	5.2	4.1	4.5	5.2	3.4	4.2	4.9	1.0
Social, community and personal services	3.9	4.2	5.7	6.0	4.9	4.7	5.1	4.7	0.7
Subtotal –aggregate value	5.6	4.7	2.8	3.2	4.1	2.6	4.0	5.1	4.7
Taxes minus subsidies	8.0	5.4	2.9	3.4	4.9	3.1	2.9	4.2	0.4
GDP	**5.9**	**4.9**	**2.8**	**3.3**	**4.2**	**2.6**	**3.9**	**5.1**	**5.1**

Source: DANE; Calculations by *Banco de la República*.

The most dynamic sector of the economy during the third quarter was construction, with significant contributions from building construction and construction of civil works.

(18.6%) and building construction (24.8%). This outcome is explained by a low basis of comparison from last year, the favorable performance in building permits awarded, and the implementation of stages in the construction process with more value added. The performance of civil-works construction was linked to the good momentum in the groups that include highways and streets, and waterways, water and sewage.

A highlight in agriculture was the sizeable growth in coffee products (41.6%). The slaughter of cattle continued to increase (3.7% versus 3.4% in the previous quarter), while the group comprised of "other" agricultural products slowed compared to the annual change posted between April and June (having gone from 6.8% to 3.6%). This could be explained by the impact of the farmers' strike that occurred during the period between August and September 2013.

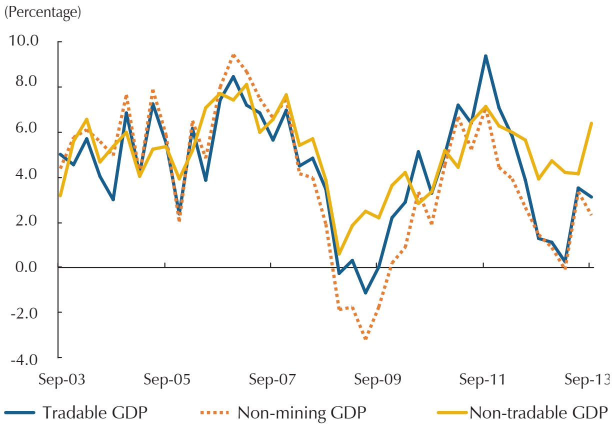
Mining is another sector that reported significant growth (6.1%); however, there are major disparities within this industry. On the one hand, the production of oil and non-metallic minerals posted positive growth rates (10.3% and 14.5%, respectively). On the other, the production of coal and metal ore fell by 5.5% and 17.1%, in that order. In the case of oil, which is the main product in the mining sector, production during that period averaged around 1,015 barrels per day, thanks to more favorable performance with respect to the transport of crude oil and fewer problems with law and order. As for coal, the second most important product in the sector, the decline was due to stoppage of work during the third quarter at one of the companies that accounts for the largest share of domestic production.

In contrast, the value added in the manufacturing sector fell 1.0% in annual terms, due to a combination of factors that have been present for the last year and a half. The presence of supply shocks, weaker domestic and external demand, and increased competition from imported goods, in a context of accumulated appreciation of the peso, are the most important factors in that respect (see Box 2 in the December edition of the *Inflation Report* 2, p. 44). Additionally, as mentioned in the survey conducted by the National Association of Industrialists in Colombia (ANDI), there also are problems associated with smuggling, shortcomings in infrastructure, and difficulties in importing certain raw materials.

Supply shocks, weaker domestic and foreign demand, and increased competition from imported goods played a role in the contraction of industry.

Accordingly, annual growth in the non-tradable sectors during the third quarter of 2013 continued to surpass the one of the economy as whole, and accelerated compared to the rate three months earlier (from 4.2 % to 6.4%). This is explained largely by the momentum in construction, both civil works and buildings (Graph 15). The tradable sector continues to expand less than the non-tradable sector, and slowed compared to the previous quarter (from 3.5% to 3.1%), possibly in relation to weaker industrial production and a

Graph 15
GDP for Tradables, Non-mining Tradables and Non-tradables
(Annual growth)



Source: DANE; Calculations by *Banco de la República*.

slowdown in agriculture. This fact is even more pronounced when mining is excluded from the calculation, in which case the annual increase in tradable GDP was only 2.4%.

B. GDP - FOURTH QUARTER OF 2013

The available figures on economic performance suggest GDP would have grown at rates slightly below those registered in the third quarter, but above those observed, on average, for the first half of 2013. Domestic demand would have maintained an important amount of momentum, with aggregate consumption growing at a rate similar to its average for the past decade, provided government consumption kept abreast of the expansion in previous quarters (which would be feasible), despite the uncertainty about the effect of the application of the Assurances Act (*Ley de Garantías*) might have had on official institutions as of November 9, 2013.

Private consumption would have increased at a pace similar to the rate observed during the third quarter, as suggested by the indicators of expenditure, income and borrowing of households. Within this item, the good performance posted by consumption of semi-durables and non-durables would have offset the slowdown in spending on durable goods, as drawn from the latest monthly retail trade sample (MRTS) published by DANE.

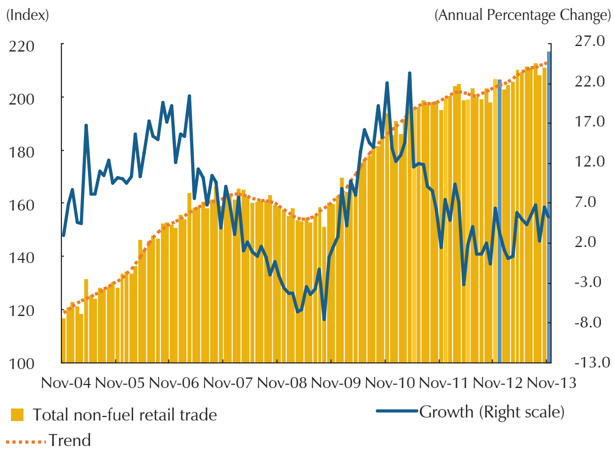
In fact, the aggregate retail sales index was up 5.3% in November from the same month in 2012 (Graph 16). This represents an annual increase of 5.9% during the October-November period, which is higher than the average on record for the third quarter (4.9%). Discounting vehicle and automotive sales, retail trade rose 6.7% annually during the same period; this implies even more of a build-up compared to the way these sales performed during the July-September quarter (4.0 %).

In the fourth quarter, GDP would have expanded to higher rates than those on record for the first half of the year.

The foregoing suggests the annual increase in durable goods consumption would have slowed during the fourth quarter, given the high base of comparison from the previous year.[5] Automobile and motorcycles sales rose 2.8% in October-November, as opposed to 8.6% in the third quarter, according to the latest information published by DANE.

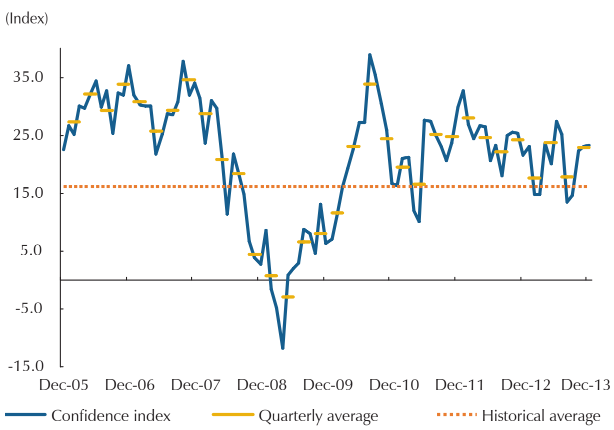
5 Purchases of durable goods rose 20.8% in the fourth quarter of 2012. This good momentum was associated mainly with the performance of vehicle sales at the biannual auto show in November.

Graph 16
Monthly Retail Trade Sample
(Total non-fuel retail trade, seasonally adjusted)



Source: DANE; Calculations by *Banco de la República*.

Graph 17
Consumer Confidence Index and Quarterly Average



Source: Fedesarrollo.

Graph 18
Unemployment Rate
(September-November Moving Quarter)

Source: DANE (GEIH); Calculations by *Banco de la República*.

The evolution of other indicators that imply what would have been the momentum in private spending during the fourth quarter is akin to what is suggested in the DANE-MRTS. The consumer confidence index published by FEDESARROLLO showed no significant variations with respect to the levels observed in November and October (Graph 17). The fourth-quarter average for this index is higher compared to the average for the third quarter, although it is not far from the levels observed in the last two years and exceeds its historical average since November 2001, when the series initiated.

In addition, information on household income, employment and borrowing vehicles supports the performance expected for private consumption during the fourth quarter of 2013. On the one hand, the inflation rate declined during that period, which should add to the income purchasing power of Colombian families. Furthermore, the latest job-market results also would have favored the rise in household consumption. The job market improved considerably between January and November 2013; as a result, the significant drop in the unemployment rate (UR) continued (Graphic 18 and shaded section on p. 37).

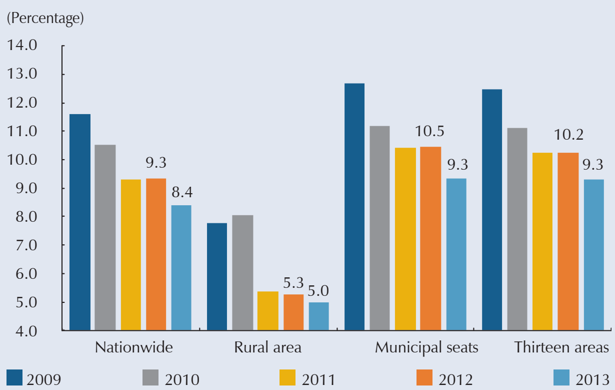
The household borrowing indicators also suggest the rate of growth in private consumption would not have changed. In fact, the increase in the household loan portfolio, in real terms, ceased to accelerate (having risen 10.8% in the fourth quarter and 10.6% in the third), and real interest rates for households showed no significant changes in the average for October-December: consumption remained stable, while credit- card lending fell marginally compared with the average for the third quarter (Graph 19).

Annual reductions in the UR were observed in all the geographic domains during the moving quarter ended in November. Unemployment was 8.4% nationwide, 5.0% in the rural area, 9.3 % in the municipal seats, and 9.3% in the thirteen main metropolitan areas (Graph A).

The steady decline in the number of unemployed is explained by the increase in those who are occupied, which came to 2.7% annually for the nationwide total during the moving quarter ended in November. This is slightly above the average for the last twelve years. As to the thirteen main metropolitan areas, the annual increase in employment during the same period was 1.8% (Graph B).

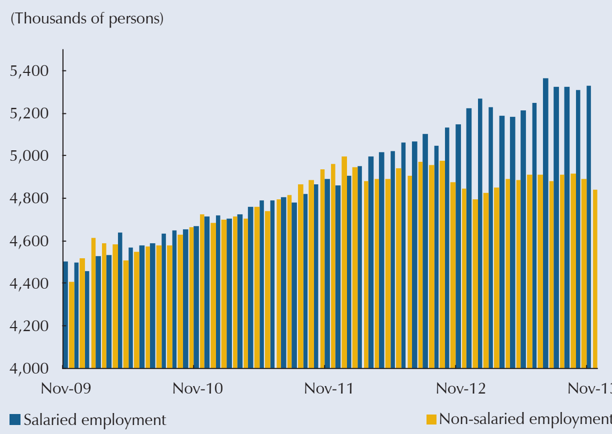
The rise in the number of occupied workers has been mainly in salaried employment, which rose at an annual rate 3.5% during the moving quarter ended in November. Non-salaried employment declined at an annual rate of 0.1% during same period. There was a significant rise in salaried employment during the May-July moving quarter, probably due to the payroll taxes that were eliminated in May (Graph C).

Graph A
Unemployment Rate
(September-November moving quarter)



Source: DANE (GEIH).

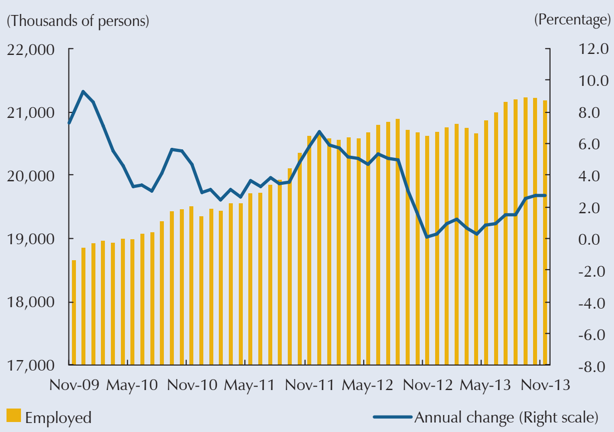
Graph C
Employment by Type of Occupation (Thirteen main metropolitan areas, Seasonally adjusted moving quarter)



Source: DANE (GEIH); Calculations by *Banco de la República*.

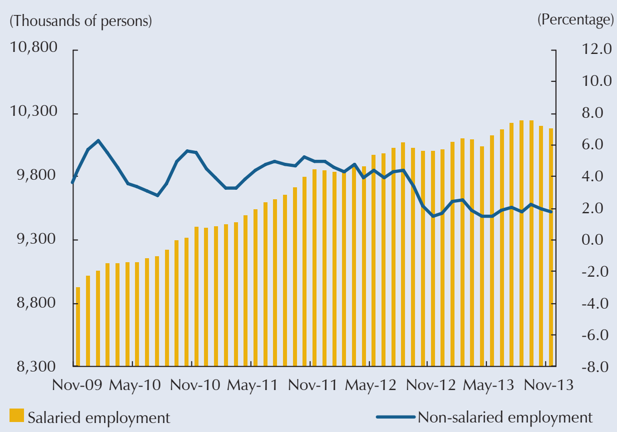
Graph B

1. Employed in the Nationwide Total (Seasonally adjusted moving quarter)

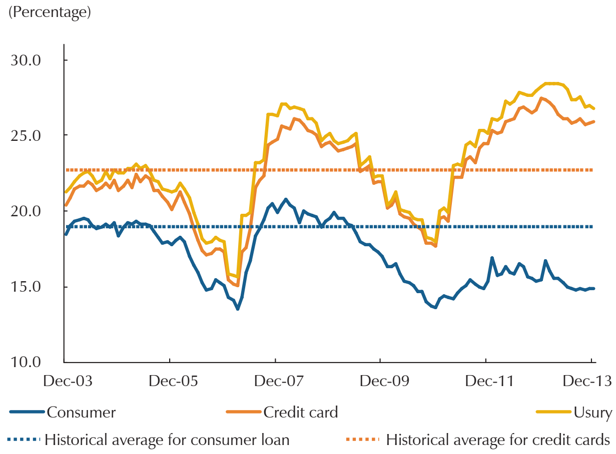


Source: DANE (GEIH).

2. Employed in the Thirteen Main Metropolitan Areas (Seasonally adjusted moving quarter)

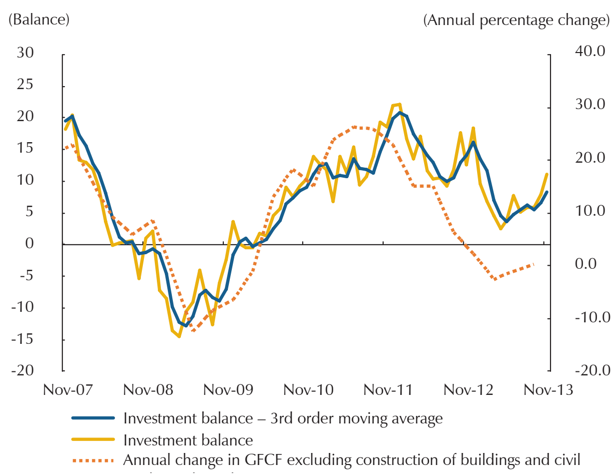


Graph 19
Real Household Interest Rates
(Non-food CPI deflated)



Source: Office of the Financial Superintendent of Colombia; Calculations by *Banco de la República*.

Graph 20
Balance of Investment Expectations (MSEE) versus Annual Change in GFCF Excluding Construction of Buildings and Civil Works
(3rd order moving quarter, annual change)



GFCF: Gross fixed capital formation
Source: DANE; Monthly Survey of Economic Expectations (MSEE); Calculations by *Banco de la República*.

Gross capital formation would have continued to increase at significant rates, although less so than in the third quarter. Discounting the construction of buildings and civil works, the aggregate for the other items would have performed better compared to the third quarter. This estimate is derived from the information in *Banco de la República*'s Monthly Survey of Economic Expectations (MSEE), with figures at November (Graph 20). An analysis, by components, shows particularly good momentum in investment in machinery and equipment, since imports of machinery for industry performed better during October-November, in real terms, compared to the figure on record for the year to date. In the case of transport equipment, the same analysis suggests the rate of decline would have been less.

In the case of investment in building construction, a slowdown in its annual growth rate is anticipated for the fourth quarter, although the pace of expansion would remain high. The momentum in the sector would be maintained, due to the positive effects of the national government's "priority interest" housing policy, with better performance in execution of the more important stages of building forecast for later this year. Moreover, good prospects in the housing market, coupled with interest- rate subsidy programs, have allowed ample funding for such projects to continue.

Construction of civil works would continue to grow at rates similar to those on record for the third quarter, as the assumption is that prepayments for public works affected by the Assurances Act were made at the national and regional level. In addition, the agencies responsible for spending are expected to settle the payments required for the projects approved during the current period.[6]

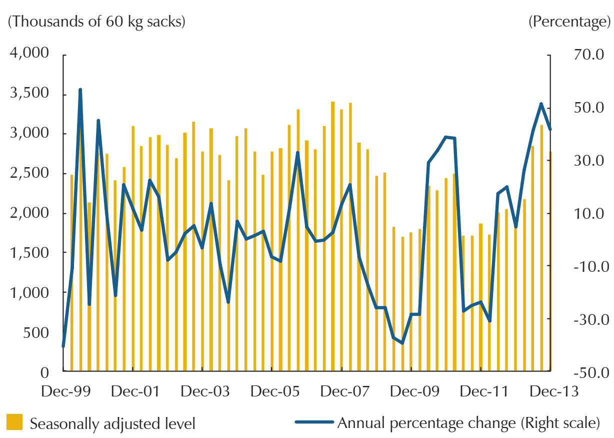
6 The National Planning Department is monitoring the closure of 1,640 investment projects financed with resources on deposit with the National Royalties Fund and FAEP (Act 781/02). These include 517 ongoing projects valued at $ 2.5 trillion (t), with an outstanding balance of $ 941,437 m still to be drawn in twelve sectors, mainly drinking water and sanitation, transport, housing, energy and education. Another 1,102 projects valued at $ 2.2 t are in the process of closure, with $ 255,663 m still to be drawn. The remaining 21 are projects that were not approved.

Finally, the import and export account figures published by DANE suggest both these areas of international trade would have accelerated in real terms, although more so in the case of imports than exports.

On the supply side, the balance of the available indicators of activity is mixed. On the one hand, some figures for industrial production show cutbacks; moreover, the effects of the paralysis in coal production so far this year appear to have continued. On the other, there is encouraging news in areas such as commerce, construction, coffee and, to a lesser extent, in oil.

The coffee sector reported 41.9% growth in production during the fourth quarter of 2013, according to figures released by the National Federation of Colombian Coffee Growers. This momentum is ratified by the export data published by the Federation and by DANE in November 2013. The renewal of approximately 460,000 hectares under cultivation in the past five years has translated into an increase in the average productivity of coffee plantations, according to the Federation (Graph 21).

Graph 21
Coffee Production
(Quarterly and Annual Growth)

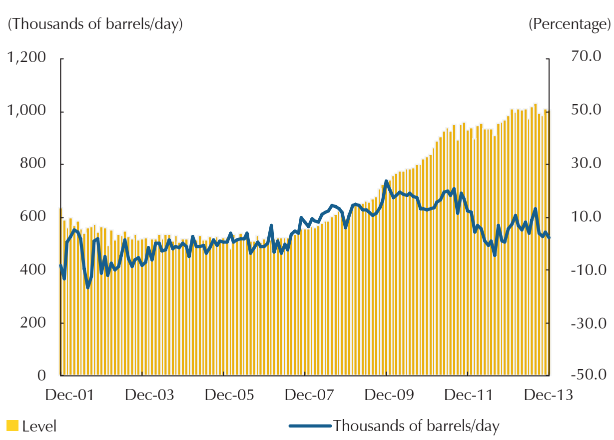


Source: National Federation of Colombian Coffee Growers; Calculations by *Banco de la República*

Commerce is expected to continue to grow, based on the good performance of retail sales, as mentioned earlier. Accordingly, employment generated by this branch of the economy posted an annual increase of 3.0% by November 2013, thanks to growth in the hiring of permanent staff (6.4%), as opposed to a decline in the recruitment of temporary staff through employment agencies (-6.4%).

The scenario in mining is mixed. Although oil production remained at favorable levels, performance in the coal sector is highly uncertain. Oil production surpassed one million barrels per day (mbd 1,007) in December, and the average for the fourth quarter was one million two thousand barrels per day (mbd 1,002). Yet, even though production levels remain high, the rate of growth declined compared to three months ago (from 8.7% to 3.1%). The favorable performance in this sector can be explained by improvements in transport conditions and the stabilization of production in different fields, compared to last year (Graph 22).

Graph 22
Oil Production
(Annual Level and Growth)



Source: National Hydrocarbon Agency (NHA); Calculations by *Banco de la República*.

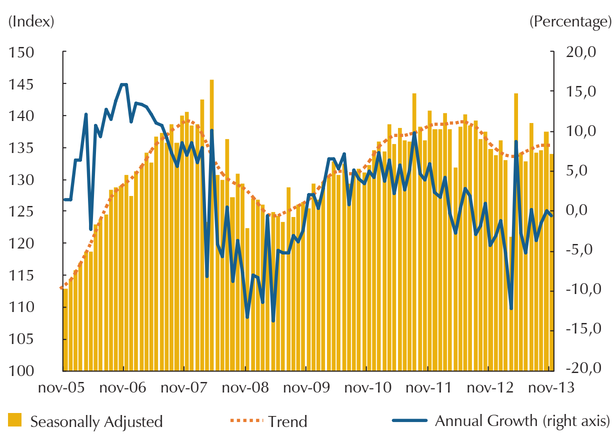
The slowdown could be attributed to security problems that affected infrastructure in September 2013. As for coal, production is expected to

Significant activity in the construction industry is expected, as suggested by the indicators for the sector and the incentives provided by the national government.

recover with respect to the previous quarter. However, there is a great deal of uncertainty about its performance, and the possibility of additional effects stemming from the workers' strike in past months before cannot be ruled out.

In construction, the few available indicators suggest a more favorable performance during the fourth quarter, at least in the case of building construction. Cement production and sales accelerated compared to the previous quarter, with growth in production going from 6.0% to 11.7%, and shipments increasing from 7.1% to 9.9%. Building permits performed well, posting 27.2% annual growth and a twelve-month cumulative increase of 12.9% by October. As noted, significant momentum in the sector is expected, due to government stimulus and better performance forecast for building permits. As for civil works, according to the above, favorable growth is expected on the supply side, similar to what it was in the previous quarter.

Graph 23
Industrial Production Index Excluding Coffee Processing
(Seasonally adjusted series, trend component and annual growth)



Source: DANE; Calculations by *Banco de la República*.

Manufacturing continued to decline in recent months, or was at a standstill in the best of cases. According to figures from the Monthly Manufacturing Sample (MMS), the DANE industrial production index, excluding coffee processing, dropped 0.6% in November 2013, bringing the year-to-date accumulated decline to 2.2% (graph 23). The results for this branch of economic activity are mixed: while subsectors such as sugar mills (53.2%), wearing apparel (21.2%) and dairy products (14.6%) recorded important positive growth, other sub-sectors such as precious metals (-33.8%), rubber (-28.4%), glass (-26.8%) and vehicles (-23.6%) reported sizeable reductions. Consequently, this makes it difficult to diagnose aggregate performance in the sector.

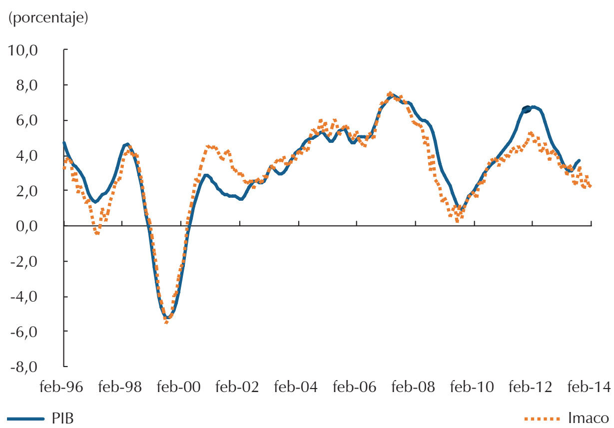
Growth of Colombia's GDP during the fourth quarter of 2013 would be between 4.0% and 5.0%, with the most likely scenario being around the midpoint of the range.

The sluggishness of Colombian manufacturing coincides with the slow growth experienced by industry in many developed and emerging markets over the past two years. Given the poor performance in global demand (for what currently amounts to several years), there now might be large surpluses of underutilized installed capacity in several industries throughout the world, with high levels of accumulated inventory. This tends to increase the competition Colombian companies face in foreign markets and locally, affecting their market share.

According to ANDI, local manufacturers have noted an increase in domestic-market competition from imported products throughout the year. The Fedesarrollo survey, with information for the same month, showed a slight decline in the indicators of orders and industrial confidence; however, the slope of the trend component is positive and moderate, which would suggest the sector could recover in the coming months. Finally, industrial exports would be starting to show a change in trend, especially in November: the annual change in the volumes reported by DANE was 5.9% compared to -7.5% in October and -9.6% on average for the third quarter.

All these factors suggest Colombia's GDP growth in the fourth quarter of 2013 would be between 4.0% and 5.0%, with the most likely scenario being around the midpoint of the range. As for the different branches of economic activity, agriculture and construction would continue to be the most dynamic. Growth in industry would remain low. The forecast range includes considerable uncertainty about the ultimate performance of investment in public works and government consumption.

Graph 24
Imaco Leading Indicator for 5 Months of GDP[a/]



a/ 12-month accumulated annual growth
Source: Calculations by *Banco de la República*.

The Imaco leading indicator (Graph 24), calculated using several sector variables with information at October, points to twelve-month accumulated growth below the central forecast. This situation was considered for the fan chart of GDP forecasts presented in Chapter IV. It is important to consider that the Imaco methodology does not contain indicators of sectors such as construction, which are contributing a great deal to growth; however, they are considered in the central forecast. As a result, the Imaco indicator might be underestimating GDP growth in Colombia.

Box 2

CHARACTERIZATION OF GROSS FIXED CAPITAL FORMATION IN COLOMBIA: PERFORMANCE AND MOMENTUM IN RECENT YEARS

Camilo Cárdenas Hurtado
Natalia Solano Rojas*

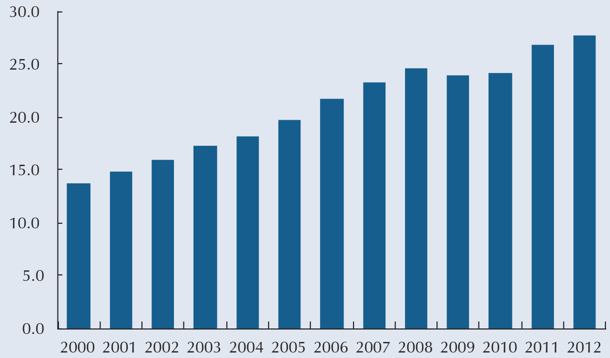
The Colombian economy has experienced major changes in its productive structure in recent decades. Trade liberalization, a floating exchange rate, the use of inflation targeting, and responsible monetary and fiscal policy management have favored macroeconomic flexibility and reduced the Colombian economy's vulnerability to different productive and financial shocks of domestic and external origin.

These structural changes sparked greater institutional confidence in the country and encouraged lower risk indexes. With the help of high international commodity prices, this allowed for significant growth in capital inflows to Colombia in recent years. As a result, investment rose considerably during the last ten years, driven in part by foreign direct investment (FDI), especially for the mining-energy sector, which has played an important role in financing the current account deficit.

The real rate of investment in Colombia, measured as the ratio of gross fixed capital formation (GFCF) to gross domestic product (GDP) in constant 2005 dollars, increased from 17.2%, on average, for the 2000-2005 period to 25.0%, on average, since 2006. Gross fixed capital formation in 2012 accounted for 28.0% of GDP. This is a record high figure and underscores the growing significance of this item to the national economy (Graph B2.1).

This article outlines, in general terms, the answers to several questions; namely, i) Who made the investment?; ii) What kind of assets were invested?; and iii) In what sector of the economy has that investment been used?

Graph B2.1
Real Investment Rate
(Percentage)



Source: DANE; Calculations by *Banco de la República*.

A six-digit breakdown of GFCF by product, in real terms,[1] has been estimated since 2005 based on information from the Integrated Economic Accounts (IEA) and the supply-utilization balance (SUB)registered by the National Bureau of Statistics (DANE). An annual aggregation of information from quarterly national accounts (base 2005) published officially by DANE was used as well. It is important to note that the figures and the estimated trends are not official, and this is simply a descriptive exercise. However, compared to the results obtained with the official information from the national accounts, it appears the adjustment of the exercise is quite satisfactory: the estimates contain approximately 97% of the total GFCF published by DANE.

What institutional sector needed GFCF?

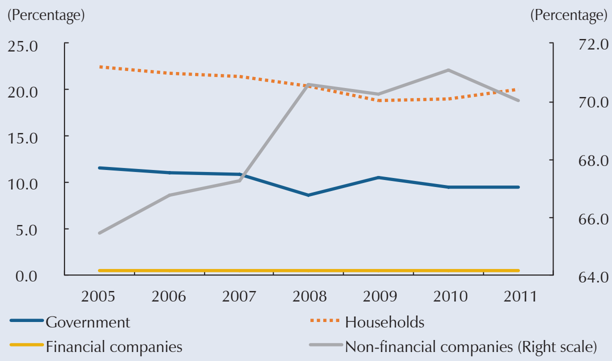
In real terms, non-financial corporations are the economic agents with the most demand for investment during the period under analysis. Their share of GFCF increased from about 65.0% in 2005 to more than 70.0% by the end of the decade (Graph B2.2).

Households and the government maintained a relative stable share throughout the period in question. In the first case, it was around 21.0% in 2011; in the second, it was 9.5%. Both kinds of agents participated marginally in GFCF between 2005 and 2011: about one percentage point (pp) in each case.

* The authors work with the Department of Macroeconomic Programming and Inflation. Mr. Cárdenas is a specialist analyst and Ms. Solano is a student intern. They wish to thank Adolfo Cobo for his comments. The results and opinions presented herein are those of the authors and, therefore, imply no commitment on the part of *Banco de la República* or its Board of Directors.

1 The deflator considered most appropriate for each series was used to estimate the series in constant prices. The IPP by sectors, the implicit deflator for construction, and the non-food CPI are some of the deflators that were used.

Graph B2.2
Share of Investment in Real GFCE, by Institutional Sector (2005 base)



GFCF: Gross fixed capital formation
Source: DANE; Calculations by *Banco de la República*.

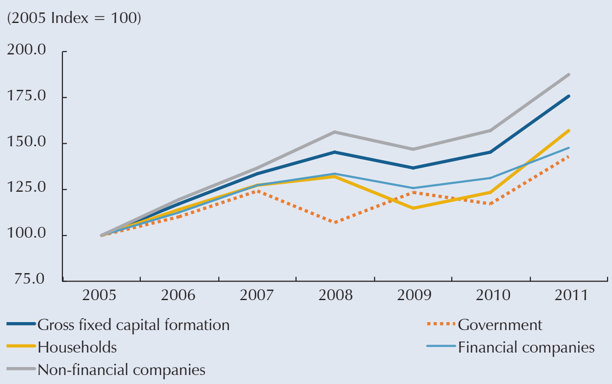
An analysis of the momentum in GFCF, by institutional sector, confirms the importance of non-financial corporations to this GDP item; they accumulated GFCF a higher rate than other institutional sectors (Graph B2.3). The asymmetric behavior of agents during the contractionary phase of the business cycle is noteworthy: in 2009, household investment contracted at a faster rate than other sectors, while government expanded, having undertaken a countercyclical policy to execute its road infrastructure investment plans more quickly and without cuts, which mitigated the effects of the international financial crisis.

Therefore, according to the estimates presented here, the sector with the highest demand for investment between 2005 and 2011, valued at 2005 prices, was the non-financial sector.

On what type of assets has investment been focused?

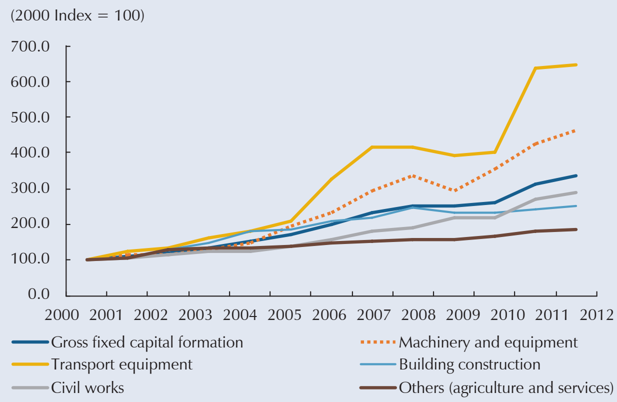
According to official figures from the national accounts published by DANE, performance within the components of GFCF, by type of merchandise, has been mixed. One highlight is the good performance of investments in machinery and equipment, and transportation equipment, which grew at annual rates above those of the economy between 2000 and 2012. On the other hand, the momentum in investment in services and agricultural has been modest. The construction of buildings and civil works has grown, on average, at significant rates, above that registered for GDP during the period in question (Graph B2.4).

Graph B2.3
Momentum in Real GFCF, by Sector



Source: DANE; Calculations by *Banco de la República*.

Graph B2.4
Momentum in Real GFCF, by Type of Goods



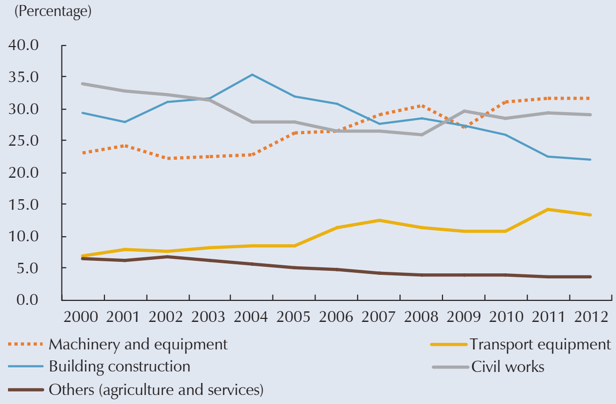
Source: DANE; Calculations by *Banco de la República*.

At the start of the millennium, civil works were the most important destination for real GFCF in Colombia, accounting for 35.0%. This sector's share of investment trended downward slightly until 2008, in favor of other components such as machinery and equipment, transportation equipment and, at the start of the decade, building construction. In 2009, this aggregate regained prominence and earned nearly four percentage points with respect to previous years. Towards the end of the period in question, its share of GFCF stabilized at around 29.0%. The share pertaining to investment in building construction has fallen since 2004. Currently, it is the third ranked destination for investment in the Colombian economy.

The importance of machinery and equipment, and transportation equipment as part of GFCF has grown over the last decade. In the first case, its share increased from about 23.1% in 2000 to 31.8% in 2012; in the second, it doubled, having gone from 7.0% to about 15% during the same period [2] (Graph B2.5).

2 The increase in investment in transport equipment during 2011 and 2012 was related closely to oil transport by tanker truck and to transporters' expectations of a build-up in the flow of cargo due to the various free trade agreements that took effect. The result was an oversupply in the sector. However, with the completion of major works in the mining sector (such as

Graph B2.5
Share of investment in Real GFCF, by Type of Goods (2005 base)



Source: DANE; Calculations by *Banco de la República.*

In summary, according to official figures taken from the national accounts published by the DANE, investment in machinery and equipment, and transport equipment has grown the fastest and, therefore, has gained investment share. Building construction expanded at a good pace until 2007, but then stalled.

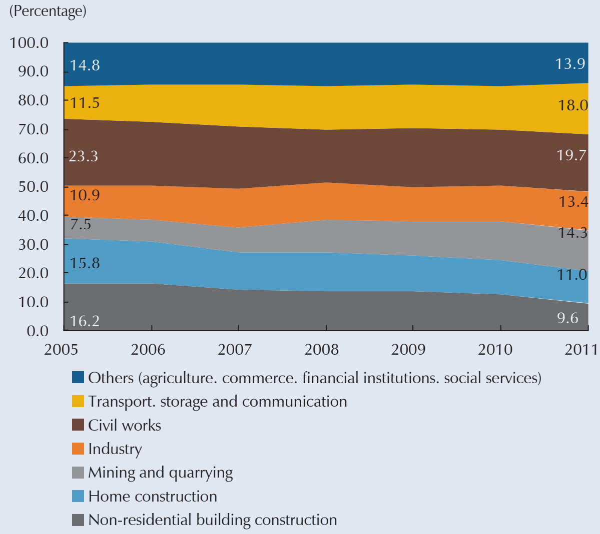
What branch of economic activity was investment used in?

To answer this question, the figures presented here are based on the classification of 59 products for which a demand for nominal investment is reported. This is according to the six-digit SUB matrices as of 2005. After converting the series for each of the 59 products into constant pesos, the branches of economic activity were classified according to those in which its use would be more feasible. We emphasize that these results are estimates and were not published officially by DANE.

The aggregate results suggest the sectors that have gained the largest share over the last five years are mining and quarrying (including pipeline construction), transport, storage and communications, and industry. In contrast, the sectors that have lost the most share of GFCF are non-residential construction, housing construction, and construction of civil works (apart from oil pipelines), the latter less so. Other branches, such as commerce, social and personal services, financial services and agriculture add up to a share that remained relatively stable over the period under analysis (Graph B2.6).

Therefore, mining, transport and industry are the economic sectors that have attracted the most investment. Construction is the sector that has received the least investment, as of late, especially for non-residential building construction.

Graph B2.6
Share of Investment in Real GFCF, by Branch of Economic Activity



Source: DANE; Calculations by *Banco de la República.*

Conclusions

The presented estimates are useful for analyzing the structure of the Colombian economy and the expansion of its installed capacity. The share of the non-financial sector in the demand for GFCF is significant. Also worth noting is the importance gained by machinery and equipment, and transport equipment over the past decade, which could have a positive impact on the productive capacity of the economy in the medium and long term. Finally, it is important to emphasize the fact that mining, transport and communications, and industry are the branches that have gained investment share.

However, this characterization of investment in Colombia is only the first step. There are still important unanswered questions, especially concerning the efficiency of its use and its productive potential. Does this investment influence the extent of potential GDP? What type of investment does the country need to ensure a stable path to economic growth? These and other questions are important, not only to enhance monetary policy guidance, but also for a better understanding of the Colombian economy in the future.

the "Bicentennial" pipeline), and elimination of the scrapping policy for the sale of new cargo vehicles, the flow of investment into this sector declined considerably during 2013.

III. Recent Developments in Inflaton

Annual consumer inflation was below the target range (2.0% to 8%4.0%) during the fourth quarter, which is less than anticipated in previous reports.

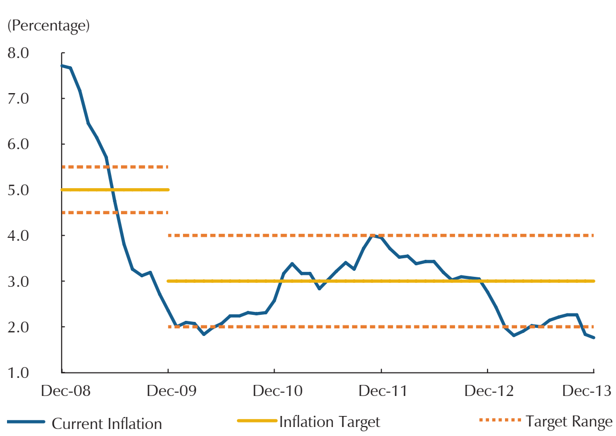
However, average core inflation remained stable at 2.5% and stayed within the target range throughout the year.

Low inflation in 2013 was due partly to supply shocks that could be temporary, especially in the components that include food and regulated items.

Accumulated peso depreciation in 2013 began to pass through to inflation in the second half of the year, mainly to tradable good prices.

In 2013, for the second year in a row, annual consumer inflation remained at low levels, around 2.0%. The end result for the year (1.94%) was slightly below the target range set by the Board of Directors of *Banco de la República* (from 2.0% to 4.0%); it also was lower than the forecast in the previous edition of the *Inflation Report* and below what the market expected (Graph 25 and Table 6). Following a reduction in the first two months of the year, consumer inflation resumed an upward trend that was not very pronounced and was interrupted unexpectedly in October, when inflation fell again below the floor of the target range.

Graph 25
Total Consumer Inflation



Sources: DANE and *Banco de la República*.

There are several factors that kept inflation near 2.0% in 2013 and caused it to finish the year below the target range. Most of them are associated with supply shocks that tend to be temporary. The first of these factors, which was highlighted in previ-

Table 6
Consumer Inflation Indicators
(At December 2013)

Description	Dec-12	Mar-13	Jun-13	Sept-13	Oct-13	Nov-13	Dec-13
Total	**2.44**	**1.91**	**2.16**	**2.27**	**1.84**	**1.76**	**1.94**
Excluding food	**2.40**	**2.11**	**2.48**	**2.36**	**2.31**	**2.21**	**2.36**
Tradables	0.77	1.13	1.10	1.34	1.34	1.39	1.40
Non-tradables	3.92	3.85	3.78	3.70	3.67	3.73	3.76
Regulated items	1.91	0.20	1.98	1.24	1.07	0.45	1.05
Food	**2.52**	**1.41**	**1.34**	**2.05**	**0.66**	**0.62**	**0.86**
Perishables	(3.90)	(1.86)	2.44	5.94	(2.82)	(2.09)	(0.16)
Processed	2.83	1.25	-0.11	0.18	0.05	(0.10)	(0.24)
Meals outside the home	4.90	3.22	3.51	3.74	3.32	3.08	3.26
Core inflation indicators							
Excluding food	2.40	2.11	2.48	2.36	2.31	2.21	2.36
Core 20	3.23	2.78	2.83	2.79	2.66	2.77	2.72
CPI excluding perishable foods, fuel and public utilities	3.02	2.51	2.14	2.19	2.12	2.13	2.19
Inflation excluding food and regulated items	2.55	2.67	2.63	2.69	2.67	2.72	2.74
Average of all the indicators	**2.80**	**2.52**	**2.52**	**2.51**	**2.44**	**2.46**	**2.50**

Source: DANE; Calculations by *Banco de la República*.

ous reports, is the 2012 tax reform. It took effect in early 2013 and included a reduction in indirect taxes on raw materials and various end goods and services that are part of the consumer basket, the most important being fuel, vehicles, certain food and meals outside the home. These tax cuts had a one-time impact on prices, affecting annual inflation during twelve months. In the December 2012 edition of the *Inflation Report,* it was estimated the tax reform would have slowed annual inflation by nearly 26 basis points (bp), an effect that should continue to end of the year.

Annual inflation in 2013 (1.94%) ended very near to the lower limit of the target range (from 2.0% to 4.0%).

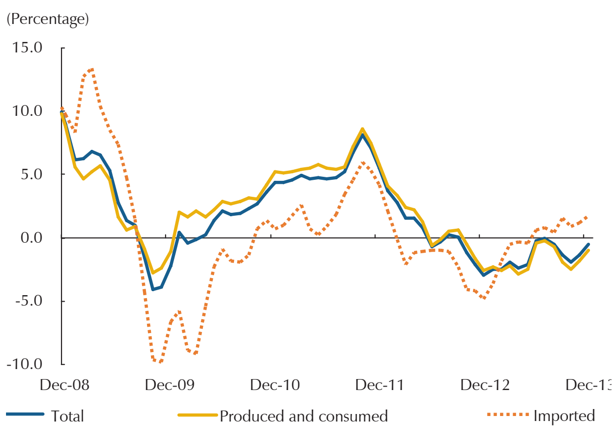
Measures taken by local authorities, such as the decision to freeze urban transit fares in Bogota and to reduce the rates for some public utilities, particularly garbage collection, also contributed to low inflation last year. These decisions, coupled with lower domestic fuel prices due to the reduction in indirect taxes, kept the annual change in the consumer price index (CPI) for regulated items at very low levels, as will be explained later.

The average of core inflation indicators (2.5%) showed no significant changes during the fourth quarter.

Similarly, good weather, with adequate rainfall, plus the upward phase of the farming cycle, resulted in a situation where prices for food produced in the country, on the whole, were more moderate than in the past. Added to this were the reductions in international prices for agricultural products imported by Colombia, especially cereals, oils and oil seeds; these offset depreciation of the peso and lent stability to consumer prices. It is important to point out that the peso weakened gradually since the beginning of the year, and annual average nominal peso depreciation against the dollar, for the full year, came to approximately 4.0%.

Finally, unlike what happened in previous years, a more stable international price for oil and the reductions in other raw material prices would have helped to curb rising production and transportation costs, besides offsetting the added pressure associated with depreciation. In this regard, the annual change in the producer price index (PPI), a variable that approximates costs, remained in negative terrain during almost the entire year, ending 2013 at -0.49%, despite the upward trend in recent two months (Graph 26). This outcome was possible due to negative growth in producer prices for agricultural products (-4.60%) and mining (-3.30%). The upward trend in producer inflation during the last two months of 2013 was observed in both the local and imported components of the PPI; the latter was related to the increase in depreciation of the peso.

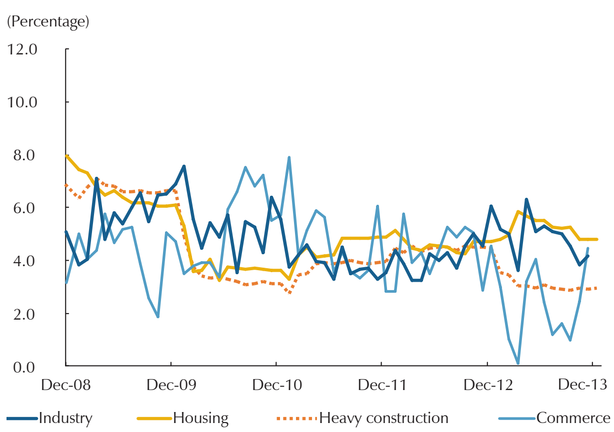
Graph 26
PPI by Origin
(Annual change)



Source: DANE.

The temporary supply shocks that brought downward pressure to bear on consumer inflation throughout 2013 were accompanied by limited demand-pulled pressure. Although the economy gained momentum as the year progressed, estimates by the Bank show its growth did not surpass the potential (or non-inflationary) level. As a result, the output gap would have ended the year in slightly negative terrain, as shown in Chapter IV of this report. This allowed somewhat slightly less of an annual change in the non-tradable CPI. The pass through of depreciation to consumer prices was moderate as well.

Graph 27
Nominal Wages
(Annual percentage change)



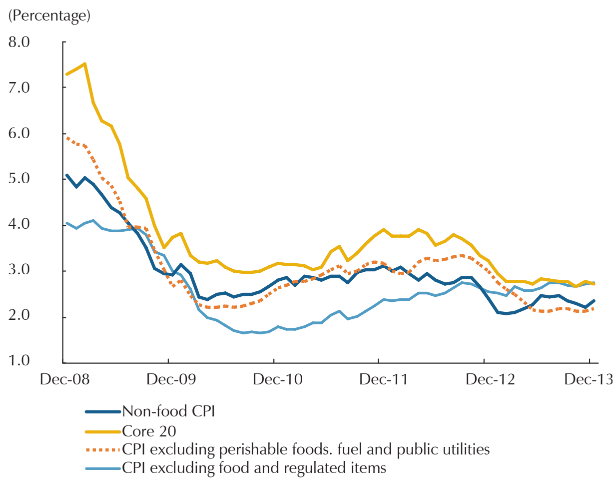
Source: DANE; Calculations by *Banco de la República.*

There were very few wage-cost pressures throughout much of the year, including the final quarter, despite the lower unemployment rate. Nominal wages in sectors such as commerce and industry were adjusted during the year at average annual rates of about 4.0% or less, despite several hikes in recent months (Graph 27). Added to this was the reduction in payroll taxes paid to the Colombian Family Welfare Institute and the National Vocational Training Service (ICBF and SENA), which account for 5.0% of an employee's wage. This should make it less expensive for firms to hire employees.

A. CORE INFLATION

The average of the four core inflation indicators that are regularly monitored by *Banco de la República* remained stable at around 2.5% throughout the second half of 2013. All the core inflation indicators were below 3.0%, which is within the target range. The CPI excluding food and regulated items (2.7%) was the highest, along with Core 20 (2.7%). The CPI excluding staple foods, fuel and public utilities (2.2%) ended the year with the lowest increase. The changes in the various indicators during the fourth quarter were moderate, with the non-food CPI ending at 2.4% in December (Graph 28).

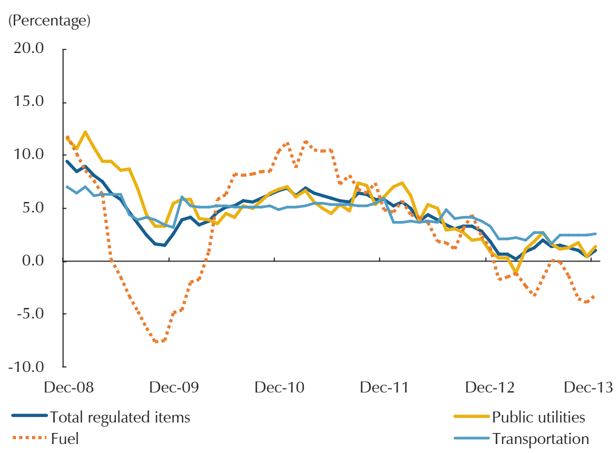
Graph 28
Core Inflation Indicators



Source: DANE; Calculations by *Banco de la República*.

The fact that core inflation has been higher than headline inflation during several quarters supports the idea that low inflation in 2013 is partly due to supply shocks, which are temporary to some extent, and not to the existence of surplus productive capacity. On the other hand, the same core inflation indicators were affected by several supply shocks, such as the reduction in indirect taxes via items such as meals outside the home. This explains the decline in these measurements from the 3.0% level during the first quarter of 2013, which could be reversed in 2014.

Graph 29
CPI for Regulated Items and Components Thereof
(Annual change)



Source: DANE; Calculations by *Banco de la República*.

Regulated items were the only component of the non-food CPI that declined, having gone from 1.9% in December 2012 to 1.2% in September 2013 and ending the year at 1.1% (Graph 29). This was possible thanks to minor adjustments in the fuel subgroup; in this case, the annual variation ended the year in negative terrain (-3.2%). Internal fuel prices were favored by the relative stability of international oil prices during 2013, which offset the upward pressure towards peso depreciation. Similarly, the annual change the CPI for transport

Low annual inflation and the stability of core inflation in the fourth quarter reflect moderate adjustments in overall production costs and low demand-pulled pressures.

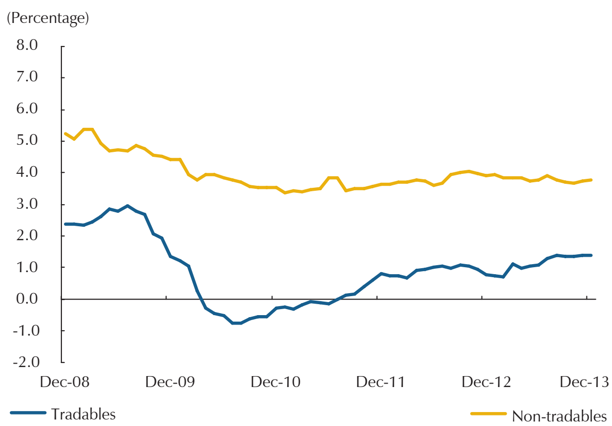
went from 3.3% in December 2012 to 2.6% in December 2013, underpinned by the relative stability in fuel prices and by decisions on the part of some authorities not to raise municipal transport fares, as in the case of Bogotá.

The annual changes in the CPI for public utilities exhibited considerable volatility throughout the year, with somewhat of an upward trend, going from 1.0% in December 2012 to 2.9in June and 1.4% in December 2013. The high volatility in the energy CPI, as illustrated in the previous edition of the *Inflation Report*, is attributable to the noise affecting rates as a result of the distribution charge, which has fluctuated particularly in the western part of the country, mainly in Cali.[7]

Within public utilities, the annual increase in water, sewage and garbage collection rates declined significantly throughout the year, having gone from 3.2% in December to negative terrain in September (-0.6%), and remaining relatively stable as of that month. Importantly, most of the slowdown in the annual variation in garbage collection rates occurred in second half of 2013, following an announcement by the Office of the Mayor of Bogotá that these rates would be cut by at least 11.0%.[8]

Natural gas was the regulated item that increased the most. The annual change in the CPI for natural gas, which was negative throughout the first half of 2013, rose significantly in the second half of the year and ended at 3.7% in December. The rebound in the dollar during the first half of the year and the rise in international fuel oil prices observed in the second half of the year are circumstances that explain these increases.

Graph 30
Tradable and Non-tradable CPI Excluding Food and Regulated Items
(Annual change)



Source: DANE; Calculations by *Banco de la República*.

The other two segments of the non-food CPI (non-tradables and tradables) experienced little change throughout the year. There was some upward pressure during the second half of 2013, especially in the third quarter; it was concentrated in the second of these groups. In fact, tradables excluding food and regulated items posted an annual increase of 0.8% in December 2012, compared to 1.3% in September and 1.4% in December 2013 (Graph 30).

7 See Box 3 in the September 2013 edition of the *Inflation Report*: "¿Por qué la volatilidad en el IPC de energía eléctrica?" (Why the Volatility in the Electrical Energy CPI?).

8 Seehttp://www.eltiempo.com/colombia/bogota/reduccion-en-la-tarifa-del-servicio-de-aseo_13110113-4

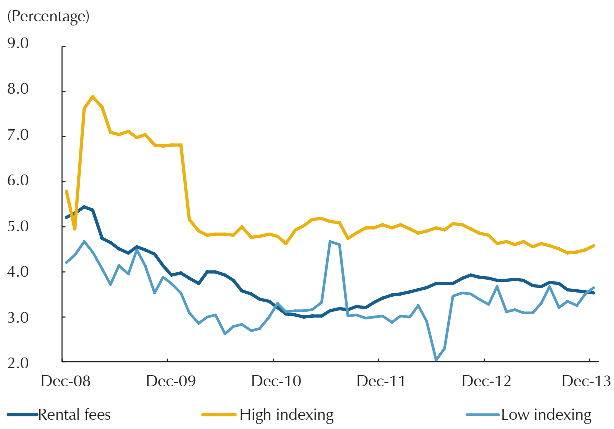
Tradables pushed up consumer prices owing to the devaluation of the peso vis-à-vis the US dollar, especially in the first half of 2013 and at the end of that year.

This performance most likely is the result of accumulated depreciation of the peso, which accelerated in the first half of 2013 and at the end of the year.

The increase in tradables took the market by surprise. A lag was expected in the onset of the pass-through of exchange rate adjustments to consumer prices in Colombia. Similarly, the upward trend was consistent with the forecasts outlined in the previous editions of the *Inflation Report*, although the year-end result was slightly below expectations.

The non-tradable component of the CPI excluding food and regulated items(3.8%) ended the year at a level that was only 6 bp higher than the one in September 2013, but clearly below the level a year earlier (3.9%) (Graph 30). The decline registered during the year was concentrated in the first quarter. Although moderate, it suggests the presence of scarce demand-pulled pressure on prices, corroborating the measurements of the output gap (near 0%).

Graph 31
Non-tradable CPI
(Annual change)

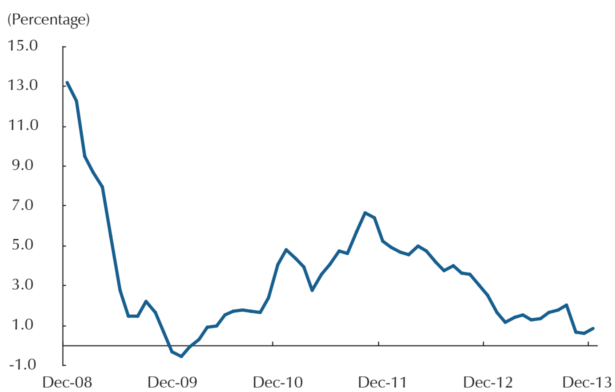


Source: DANE; Calculations by *Banco de la República*.

As for non-tradables, a prominent feature was the decline in rental fees from 3.9% in December 2012 to 3.6% a year later; however, there was a slight rise of 6 bp in the fourth quarter. Items with high indexing experienced a similar situation. Their annual growth tended to slow during the first nine months, from 4.8% in December 2012 to 4.4% in September, followed by a slight rebound to 4.6% during the final quarter. The annual variation in the CPI for items with low indexing showed no significant changes in the first three quarters, but accelerated in the fourth (from 3.3% to 3.6%), although part of this increase might be reversed in early 2014 (Chart 31).

B. FOOD INFLATION

Graph 32
Food CPI
(Annual change)



Source: DANE; Calculations by *Banco de la República*.

The annual change in the food CPI accelerated to an important degree during the third quarter, when nationwide strikes by farmers and truckers caused food prices to rise, especially in late August and early September (Graph 32). However, once supplies at the major wholesale provision markets returned to normal, especially in the center and south of the country, annual food inflation fell more than expected in October and November, closing out the year with a slight rise of 0.9%.

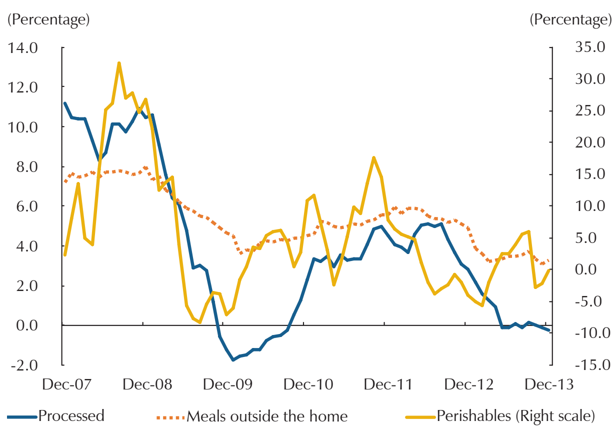
The low adjustment in the food CPI is a product of favorable weather, good production, declining international prices, and a reduction in indirect taxes on meals outside the home (restaurants) and on certain processed foods.

This is one of the lowest increases on record for this variable in the last fifty years, together with the one in December 2009 (-0.3%)

All the major food groups experienced declines throughout the fourth quarter of last year. However, the annual change in the CPI for perishable foods was particularly pronounced (having gone from 5.9% in September to 0.2% in December). Good weather and adequate rainfall during 2013 allowed for better crops; this, in turn, coincided with an upward phase in the food supply. Also important is the fact that the agricultural sector would have benefited from the reduction in the value added tax (VAT) on agricultural supplies and equipment. This was contemplated in the tax reform at the end of 2012 and should have allowed for a reduction in costs as of mid-2013.

As for processed foods, a decline in the rate of annual price hikes was observed throughout the year (from 2.8% in December 2012 to 0.2% in September and 0.2% in December in 2013). These lower adjustments might be due to the reduction in VAT on certain products such as sugar, chocolate, pasta and some processed meats, thanks to the tax reform mentioned above. However, they also would be influenced by the decline in international prices for cereals and oil at mid-year, which cushioned the increase in peso depreciation.

Graph 33
Food CPI, by Groups
(Annual change)



Source: DANE; Calculations by *Banco de la República*.

The annual change in meals outside the home declined again in the fourth quarter, following first-quarter reductions, and can be attributed partly to the tax reform (Graph 33). This category also benefited from the cut in indirect taxes, thanks to elimination of the 16% value-added tax on restaurant service, which was replaced by a consumption tax of 8.0%.[9] However, there are other factors that might explain the lower rate of adjustment in this segment, such as scant demand-pulled pressures, certain costs (especially for wages and utilities) that tended to increase less than in past years and quarters, and falling levels of indexing and expectations, due to low inflation data for the last two years.

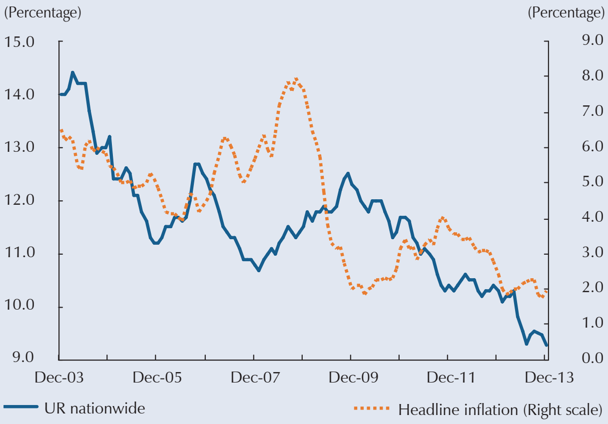
9 See Box 4 in the December 2012 edition of the *Inflation Report*: "Cambios al IVA dentro de la nueva Reforma Tributaria" (The New Tax Reform: Changes in VAT).

BOX 3
THE APPARENT PARADOX BETWEEN SIMULTANEOUS DECLINES IN INFLATION AND UNEMPLOYMENT: AN EXPLANATION BASED ON SUPPLY SHOCKS

Juan Sebastián Amador Torres*

The recent decline in the rates for unemployment and inflation raises questions about the relationship between these two variables in Colombia. The behavior of both can be charted with a Phillips curve (PC), which suggests the existence of a negative relationship between inflation and the unemployment rate (UR). With a lower UR, conventional wisdom suggests price adjustments should be higher; however, consumer inflation and the UR have declined since late 2012, contrary to the theory behind the PC (Graph B3.1). This note presents some considerations regarding this apparent paradox.

Graph B3.1
Headline Inflation Rate and Nationwide Unemployment Rate (UR)
(Annual change, seasonally adjusted moving quarter)



Source: DANE.

The Expanded Phillips Curve

First of all, PC proposed by Gordon (1977 and 1982a) indicates unemployment is not the only determinant of inflation. In this context, current inflation depends on: i) expected inflation, ii) cyclical unemployment, and iii) supply shocks that affect the economy.

Within this framework, the expectations component reflects the inertia that might exist due to setting prices and contracts according to anticipated inflation. Likewise, cyclical unemployment, defined as deviations of the UR from its structural level, can push inflation up or down. In particular, when aggregate demand increases, firms demand more labor, which lowers unemployment and generates higher wage hikes; these, in turn, increase inflation.

Finally, there is the effect of supply shocks to the economy at a given point in time. The classic example of an adverse supply shock is the increase in inflation caused by rising international oil prices in 1973-1975. In fact, Gordon's version of the PC (1977 and 1982a) was developed to explain that episode, when prices were correlated positively with the unemployment rate, contrary to what is proposed by the simplest version of the PC (Blinder , 1979 and 1982).

Determinants of the Recent Developments in Inflation

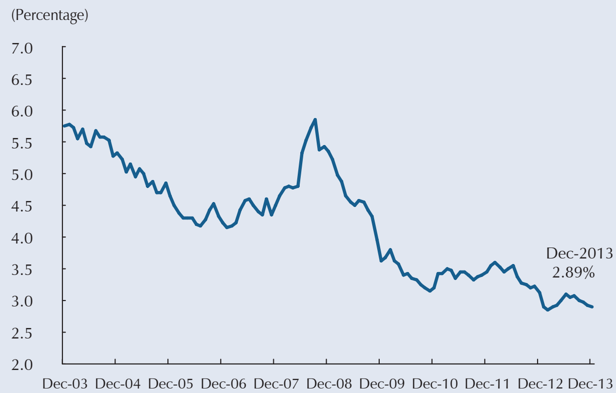
Using this theoretical concept, we can reconcile the simultaneous decline in the unemployment rate and inflation by analyzing the behavior of each of the three determinants, according to the PC.

It can be argued that expectations are not the source of the decline in inflation, since the measurements obtained from *Banco de la República*'s survey of institutions in the financial system are anchored around the midpoint of the target range. According to the information at December 2013, banks and brokerage firms expect the annual change of this indicator to be 2.89% by the end of 2014 (Graph B3.2).

The recent momentum in the job market does not seem to explain the behavior of inflation either. According to the PC, for the decline in inflation to be explained by employment, there would have to be significant reductions in the demand for labor and in wages. Yet, none of these events have occurred. The demand for labor, measured by the number of employees, has grown in the past two years at annual rates near it historical average (see the shaded section on p. 37, Graph B, panels 1 and 2), and

* The author works for the Inflation and Programming Department. The opinions expressed herein imply no commitment on the part of *Banco de la República* or its Board of Directors.

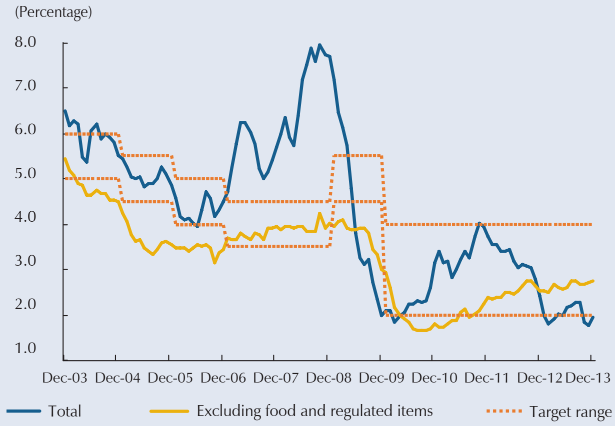
Graph B3.2
Inflation Expectations at 12 Months: Banks and Brokerage Firms



Source: *Banco de la República*

Graph B3.3

A. Headline Inflation, Excluding Food and Regulated Items, and the Target Inflation Range



B. Inflation in Food and Regulated Items

Source: *Banco de la República*

wage adjustments have not change significantly during the last five years (see Graph 27, Chapter 3).

According to the above, *Banco de la República*'s estimates of the non-accelerating inflation rate of unemployment(NAIRU) indicate it has been falling along with the actual UR. As both have declined to the same extent, the deviation has been maintained, so its effect on inflation showed no significant changes.

However, the possible future effects of the reduction in payroll taxes and contributions to health care paid by employers, as established in the tax reform bill, might significantly reduce labor costs. This factor should be taken into account and would explain the limited labor-cost pressures in 2013, a situation that could reoccur in 2014.

Consequently, the evolution of the factors related to supply shocks seems to be the main reason behind the lower price adjustments. Evidence of this hypothesis is the fact that, by excluding food and regulated items, inflation is much closer to the mid-point of the target range (Graph B3.3, panel a). Both these baskets, which account for 38% of the CPI, have been adjusting at lower rates due to an increase in food supply (vis à vis demand) and reductions in prices for fuel, transportation and utilities (Graph 3, Panel B). In addition, estimates by *Banco de la República* suggest the value-added tax (VAT) changes referred in the tax reform (Act 1607/ 2012) also pushed down inflation (see Box 4 in the December edition of the *Inflation Report*).

It should be noticed that these supply factors appear to be temporary in nature, since the rates of adjustment in food and regulated items have increased in recent months and the effect on prices of a change in the value-added tax is only a one-time event.

In this respect, if the monetary authority were to respond to a temporary supply shock, it would imply a permanent welfare cost in the form of a higher price level (Phelps, 1978, Gordon, 1984). A response to a favorable temporary shock, in the short term, could obtain less unemployment temporarily, at the same rate of inflation. However, when the shock is diluted, the inflation rate would be even higher than it was initially, counteracting the positive effect on employment. Therefore, with the function of monetary policy being to promote price stability in the long term and, thus, to facilitate a path towards sustainable growth, it is best not to respond to shocks of this type, provided they do not affect market expectations, as seems to be the case in the current episode.

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IV. Medium-Term Forecasts

The Colombian economy would grow at a slightly higher rate in 2014 than would have been the case in 2013.

Growth would be favored by further development in the economies of our trading partners, relatively high terms of trade, better working conditions, and expansionary monetary and tax policies.

The inflation forecasts for the end of 2014 and for 2015 are higher compared to what was anticipated in the previous edition of this report, partly because of added currency pressures.

Even so, the probability that inflation in 2014 will be within a range of 2.0% to 4.0% is still high.

A. ECONOMIC GROWTH

The exercise to forecast GDP growth presented in this report suggests the economy will expand in 2014 at an annual rate close to what would have been observed for 2013 as a whole. The most likely scenario points to a figure that is slightly above 4.0% and close to the average since 2001 (4.3%).

The Colombian economy would grow slightly more than 4.0%, which is close to its average since 2001 (4.3%).

Better performance in the international environment is one factor that would sustain the good output performance in Colombia. As presented in the balance of payments scenarios in Chapter I, prospects for global demand are more encouraging than those described in the previous edition of the *Inflation Report*. Colombia's trading partners would see more dynamic growth, which would favor an expansion in non-traditional exports. The improved outlook for the advanced economies would bolster revenues from remittances, which would be slightly over 5.0% higher than 2013.

Although international commodity prices are expected to be lower in 2014, the country's terms of trade would remain high.

Even so, international prices for export commodities are expected to be lower in 2014 compared to those on record for all of 2013, but higher than was predicted last quarter. This being the case, terms of trade would remain high, although slightly below the average observed for the previous year. This, in turn, would be reflected in national income and would limit chances for a build-up in public and private spending. FDI is expected to be similar to what it was in 2013: hence, a favorable figure for an expansion of the Colombian economy.

Domestically, the expansionary monetary policy stance, which began in the second half of 2012 and has been maintained since the first quarter of 2013, would continue to have positive consequences on output by providing liquidity to the markets and funding sources for consumption and investment. In addition, the variation in prices is expected to remain low in 2014, but within the target range for inflation proposed by *Banco de la República*. The latter would have a positive impact on the purchasing power of households, which assumes a good momentum in private consumption of non-durables and semi-durables (though relatively stable compared to 2013).

The job market would continue to exhibit important dynamics, especially in the shift towards salaried employment. The latter usually is associated with better working conditions and higher salaries, which would benefit household consumption throughout the year. On the other hand, the medium- and long-term expectations component of the consumer confidence index published by FEDESARROLLO remains favorable, not unlike the rates observed in the last two years and above its historical average since 2001.

Government consumption continued to exhibit favorable momentum in 2014, but would grow at less of a rate.

Less growth in government expenditures and consumption is expected compared to 2013, but it would still be relatively high. Judging by the forecasts for the deficit in the consolidated public sector (CPS), published by the Ministry of Finance and Public Credit (MFPC),[10] public spending is expected to continue to contribute significantly to growth of the Colombian economy. However, there is uncertainty regarding the behavior of several factors that could influence the forecasts for this item. On the one hand, direct government contracting would be interrupted during the first half of the year due to application of the Assurances Act, which would bring downward pressure to bear on the momentum in this sector. Moreover, the tax collection target for 2013 would not have been met entirely. So, to avoid adding to the country's fiscal deficit, spending in 2014 would not increase at higher rates than those observed in the past year. However, it is noteworthy that the national government acquired financial commitments with various

10 According to the projections in the *Financial Plan* for 2014 (MFPC, February 6, 2014), the fiscal balance forecast for the CPS in 2013 would come to -1.4% of GDP; for 2014, it would be -1.3%.

The growth in aggregate consumption would be at rates close to its average for the last decade (4.0%).

productive sectors (coffee growers, potato farmers, etc.), which could exert upward on end consumption in this institutional sector.

Given the foregoing, aggregate consumption would grow at rates close to the average for the past decade (4.0%). When decomposing by items, household spending is expected to be slightly more dynamic than in 2013, mainly due to the consumption of durable and semi-durable goods.

On the investment side, the rate of growth in civil works is expected to be lower than last year, but it still would be significant, provided the pace of national and regional budget performance observed in 2013 continues throughout the year. Moreover, construction of some of the highway projects associated with what are known as fourth generation (4G) concessions is expected to begin this year. The entry of 4G technology towards the middle of 2014 assumes a significant amount of resources for additional investment in civil works in the telecommunications sector. Even so, there is a great deal of uncertainty about the momentum in this item, particularly with respect to the cost of financing these works. They are expected to remain low, even with an international outlook such as the one implied by the forecasts in this report.

In addition, investment in the other items that make up gross fixed capital formation (GFCF) would increase at a good pace throughout 2014.It is expected that better industrial performance, as discussed in this section, would encourage investment in machinery and equipment and promote its expansion at acceptable rates. On the other hand, the decline in transport equipment would come to a halt following the drop in 2013. This would be due to the investment plans announced by major companies in the air transport sector, among other factors. Finally, entry into force of the various free trade agreements (FTA) signed by the Colombian government with several countries could encourage imports of capital goods and the arrival of new manufacturing companies in the country, thereby promoting the accumulation of investment in Colombia.

The performance of foreign trade is expected to improve during 2014, in line with continuation of the dynamics in domestic demand and better than expected foreign demand in 2013.

Given this outlook, foreign trade items are expected to grow pursuant to a domestic demand that would maintain its momentum and an external demand that could be better than was forecast in the past. On the one hand, imports would increase at higher rates than in 2013, thanks to good private consumption and a recovery in the demand for durable goods. Investment performance also would contribute to the purchase of capital goods for industry and transport equipment, while the recovery in industry would boost raw material imports. Exports, on the other hand, also would grow at a higher rate than last year, due to a more dynamic external demand. Coffee, oil and coal production continue to contribute positively to growth, despite the forecasts of smaller amounts produced.

In terms of GDP by branch of activity, the sectors expected to be the most dynamic in 2014 are construction and financial services, which should grow more than the economy as a whole.

As for GDP by economic activity, the sectors expected to be the most dynamic in 2014 are construction and financial services; they should grow more than the economy as a whole. The forecast for growth in other sectors, such as commerce, agriculture and social services, contemplates rates of expansion that continue to be important for aggregate economic performance. Finally, mining is expected to grow at a rate similar to the one on record for 2013, which means it would continue to grow slightly less than the economy as a whole.

In construction, as mentioned, the continuation of the "priority interest" housing program, the mortgage interest rate subsidy, and the highway and telecommunications infrastructure projects is expected foster new economic growth during 2014, although at less of a rate than expected for 2013. Financial services would perform well. Given their share (about 19%), they would contribute significantly to GDP in 2014, thanks to good momentum in lending, which should remain at levels above the historical average.

In the case of agriculture, a robust growth is forecast for 2014, led by coffee. The National Federation of Colombian Coffee Growers says production should reach 11.3 million 60-kilo bags, which would imply an increase of 3.6% over the previous year.[11] Favorable weather, coupled with new planting, should enable this sector to continue to grow at significant rates. It is important to point out that more than 460,000 hectares planted in coffee have been renovated in the last five years; this would translate into an increase in the average productivity of coffee plantations.

Industry, which performed negatively during the past two years, would begin to report positive growth, partly due to a low base of comparison with respect to 2013. However, growth in this branch would be moderate. Despite the efforts of industrialists to diversify their export destinations and to renew their installed capacity (for the sake of better productivity), some continue to face hard competition from imports. This is according to the latest ANDI survey.

Industry, which performed negatively during the past two years, would begin to report positive growth, partly due to the low base of comparison with respect to 2013.

It should be noted that industrial activity might be highly irregular in 2014, due to the effect of business days, particularly the fact that Easter again falls in April. Accordingly, the first quarter of 2014 would show a marked improvement, while the April-June period would have the opposite effect. Towards the second half of the year, better external and domestic conditions are expected to allow for a further increase in industrial production.

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11 Coffee production in 2013 came to 10.9 million 60-kilo bags.

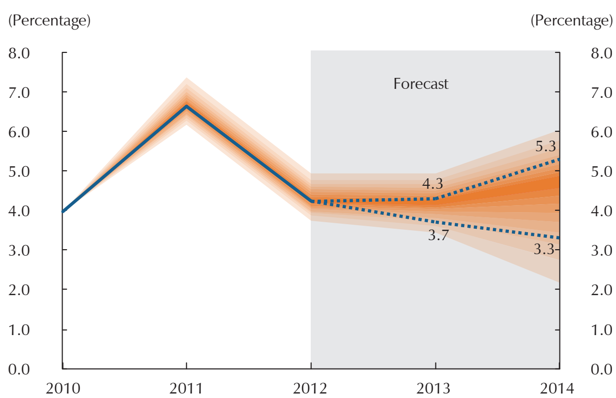
A recovery in mining is expected, although the rate of growth in mining would not equal that of past years.

Finally, a recovery in mining is expected, following the problems with law and order and transport that complicated the oil and coal production chain. However, it will not grow as much as in previous years (above 10%). In fact, mining would expand less than the economy as a whole. As for oil, the Colombian Petroleum Association (ACP) estimates production will reach one million thirty thousand barrels per day; this would imply an increase of 2.4% compared to 2013.

In the case of coal, Colombia's second leading export, growth is expected to be about 5.0% in 2014. This is assuming production would be slightly below target for 2013, since one of the major companies in the sector (Drummond) has indicated it will have problems transporting coal to the port in the first quarter of 2014, due to a shutdown during that period.

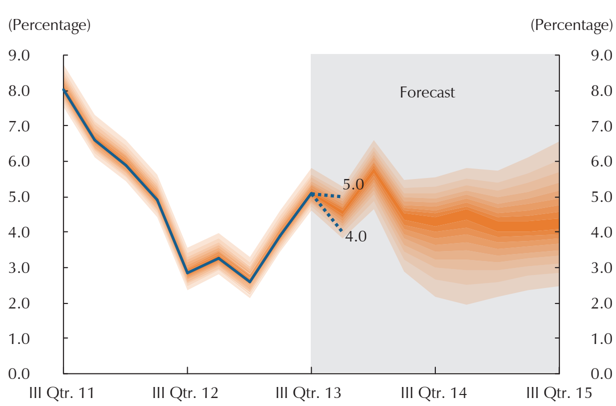
Based on these circumstances, the forecast for GDP growth in the most likely scenario is around 4.3% for 2014. This is within a range of 3.3% to 5.3%, which is higher than the range in the previous quarterly inflation report (3.0% to 5.0%). However, it is still broad, as there is a great deal of uncertainty, both domestic and foreign, concerning: i) the performance of civil works and building construction, and ii) and how normalization of monetary policy in the United States might affect Colombia and its trading partners. The floor and ceiling of the forecast range are associated with the low and high scenario for the international context, as outlined in Chapter I.

Graph 34
Annual GDP Growth Fan Chart



Source: DANE; Calculations by *Banco de la República*..

Graph 35
Quarterly Annual GDP Growth Fan Chart

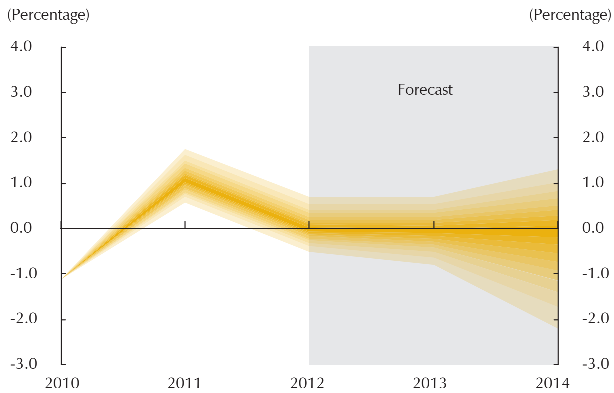


Source: DANE; Calculations by *Banco de la República*.

The risk balance, which is shown in the growth fan charts (Graphs 34 and 35), suggests the downside risks are more important. It points out the non-negligible likelihood that GDP growth in 2014 will be below the central forecast. The main risk is still less global growth than is anticipated in the baseline scenario. In contrast, the upside risks are related to cost reductions for imported raw materials and better performance with respect to spending on civil works, building construction and public consumption.

The latest estimates of the output gap (Graph 36) for the central forecast suggest this variable would have stayed near zero in 2013, on average, and would fall somewhat below that level in 2014.

Graph 36
Output Gap Fan Chart



Source: DANE; Calculations by *Banco de la República*.

The models for 2014 show a slightly lower number than the one obtained in the September edition of this report, which is consistent with the course of growth forecast for 2014.

As always, the uncertainty associated with these estimates is important. According to the risk balance shown in Graph 36, the gap in 2013 would have been between -0.8% and 0.7%, with a high probability. This balance has less of a downward bias than the one presented previously. For 2014, the models indicate uncertainty remains high and the forecast range is still broad, with a downward bias (between -2.2% and 1.3%).

Banco de la República's models indicate the unemployment rate in 2013 was quite close to the non-accelerating inflation rate of unemployment (NAIRU). The job market gap would continue to close in 2014, suggesting that inflationary pressures originating with that market will remain low, especially considering that the cuts in labor costs this year will continue, due to elimination of the health care contributions paid by employers, as provided for in the recent tax reform.

B. INFLATION

1. Projections

In this report, the forecast for inflation at a horizon of four or more quarters tends to converge more quickly with the target of 3.0% compared to the forecast in the September report. This is confirmed in the two models used by *Banco de la República* (MMT and Patacon), despite the fact that the results for December were lower than expected.

Two circumstances explain why the forecasts were revised upward. The most important one deals with the effects of normalization of monetary policy in the United States, which seem to be stronger than estimated initially, given the developments witnessed during late 2013 and early 2014. It is important to point out that the inflation forecasts presented in previous reports assumed the Fed would begin tapering its asset purchase program late in the first quarter of 2014 or early in the second. However, in fact, tapering was announced in December 2013 and began in January.

The inflation forecast in this report converges more quickly to 3.0%.

Although an impact on flows of short-term capital to the emerging economies was expected, along with a gradual weakening of their currencies

The central forecast for inflation contemplates a higher interest rate than was estimated in previous reports.

against the US dollar, including the Colombian peso, what happened in the first weeks of the year caused a stronger and more abrupt reaction from the markets. When inflation was forecast, the currencies of the more vulnerable medium-size emerging countries, such as Turkey and South Africa, suffered a great deal of distortion, with significant outflows of capital that jeopardized their financial and macroeconomic stability. This situation threatened to affect more stable markets and caused many currencies to depreciate to an extent not seen in several years. This was particularly the case in Latin America. In fact, the Colombian peso surpassed the $ 2,000 per dollar barrier in late January for the first time since late 2010.

In Colombia, besides reduced short term private net inflows, the central forecast for the balance of payments, as outlined in Chapter I of this report, includes a downward revision of export earnings in 2014 compared to the forecast in the September report, owing to the reduced output anticipated for some commodities. Consequently, the current account deficit tends to be a bit higher than previously expected, which means the exchange rate would face less appreciation pressures.

Considering these circumstances, the central path of the inflation forecasts presented in this report assumes a higher exchange rate than the one used in previous reports. This translates into more pressures on prices for tradable goods and services than was predicted three months ago, which is why the inflation forecast for tradables excluding food and regulated items is significantly higher in this report.

The added exchange pressures also increased the level of forecasts for the food prices, both imported and domestically produced (in the case of the latter, the increase would be due to higher input costs). Regulated prices would be affected as well, especially those for gasoline and residential natural gas. The domestic prices of these items depend not only on international prices, but also on the exchange rate.

A second factor that explains the increase in inflation forecasts for the end of 2014 and in 2015 is the presence of positive supply shocks during late 2013 that were much stronger than estimated initially. These shocks, which mainly affected prices for perishable foods, due to an ample supply (favored by good weather, among other factors), explain the unexpected drop in annual inflation to below the target range during the fourth quarter. Towards 2014, lower prices would tend to discourage supply and generate more pronounced hikes than those estimated earlier, particularly in the second half of the year.

The forecast for tradable inflation was raised in this report.

In the case of regulated items, less of an annual change during the fourth quarter of 2013, with lower than expected data, is the result of a sharp but

Pressure on prices from aggregate demand will continue to be scarce in 2014.

temporary drop in energy rates in Cali. This indicator has been extremely volatile for more than a year, as documented in the previous report. Consequently, this behavior would not imply a downward trend in the medium and long term; in fact, the reduction in recent months can be treated as a supply shock that would tend to reverse itself in late 2014, particularly given the low base of comparison.

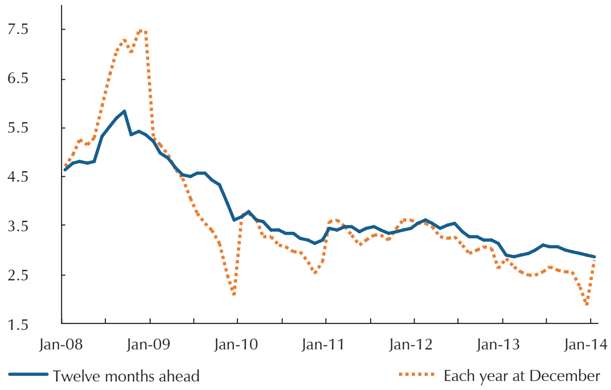
Apart from the two new circumstances described above, there has been little change in the macroeconomic environment that would shape inflation in Colombia during the next two years. Therefore, the prediction in this report is still one of very few demand-pulled pressures in 2014. The 4.3% growth forecast would imply a slightly negative gap in the early quarters of the year, which would tend to close towards the end of 2014. This should ensure moderate adjustments in prices for non-tradables, including restaurant meals. It also could somewhat mitigate the pass through to consumer prices of an eventual increase in peso depreciation. As indicated in several previous reports, this depends on the economic cycle.

With regard to labor costs, the significant drop in the unemployment rate would have closed the gap in the job market at the end of 2013, in principle. This would mean larger wage hikes in 2014 compared to the previous year, mainly for skilled jobs. However, the second phase of payroll tax reductions, which now extends to health care payments amounting to 8.5% of the base wage, would help to cushion these higher adjustments. So, for employers, labor costs will not necessarily increase.

Due to the higher exchange rate assumed in the models, one might think imported non-labor costs could exert upward pressure on domestic prices, more so than was estimated three months ago. However, some decline in international raw material prices is still anticipated for 2014 or, at best, stability, which would tend to diminish this impact.

Graph 37
Annual Inflation Forecasts by Banks and Brokerage Firms

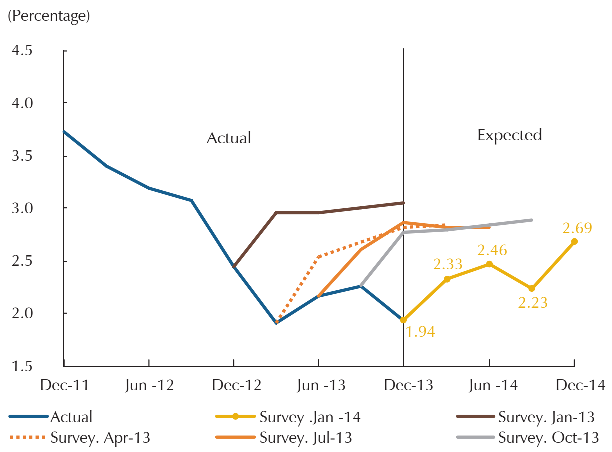
(Percentage)



Source: *Banco de la República*.

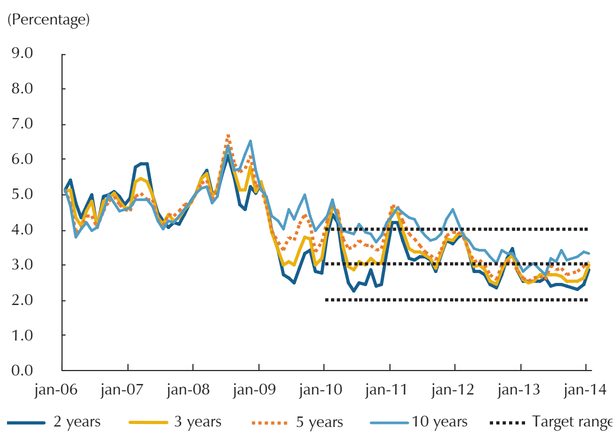
In January, inflation expectations at different horizons remained near the midpoint of the target range, despite several declines in the fourth quarter of 2013 when inflation dipped below 2.0%. This is suggested by the measurement obtained from *Banco de la República*'s monthly survey of financial market analysts in January, which hovered around 3.0% at twelve months (Graph 37). The quarterly survey of entrepreneurs for the same month put inflation at 2.7% for the same horizon (Graph 38). Expectations estimated on the basis of the TES yield curve at 2, 3 and 5 years increased slightly in the early weeks of January, converging

Graph 38
Actual Inflation and Inflation Expectations
(At three, six, nine and twelve months)
(Annual inflation)



Sources: DANE and *Banco de la República*.

Graph 39
TES-derived Inflation Expectations
(At two, three, five and ten years)
(Monthly average)[a/]



a/ Nelson and Siegel method
Sources: *Banco de la República*

towards 3.0%, while those at 10 years were somewhat above that figure (Graph 39).

A CPI breakdown by baskets, using the MMT model, shows the annual change in tradables excluding food and regulated items would accelerate gradually throughout the year and be above 2.0% at the end of 2014 and in 2015, which was not estimated in the September report. This is due to a higher exchange rate, as contemplated in the current forecasts.

The forecast for non-tradables excluding food and regulated items continues to denote a gradual decline in the annual variation to 3.0%, which the models signal would happen by the end of 2014. The indicator would remain at that level towards 2015.

The central forecast for the regulated CPI during the first three quarters of the year is less in this report compared to the September edition, given the low levels reached in late 2013. However, a sizeable increase during the fourth quarter is expected, due to the low base of comparison noted earlier. In the case of this group, the reduced tendency toward appreciation of the peso forecast for the long term, coupled with less of a drop in international oil prices than was anticipated in September, might result in a higher forecast for 2015. It is important to point out that this central forecast does not include possible rate cuts for certain public utilities, because of changes in the regulatory framework.

The annual variation in food prices is expected to accelerate during the first half of the year, fueled by those for perishables and processed foods. The higher exchange rate affects this behavior, especially via imported foods and agricultural raw materials; the impact would be felt throughout 2014 and in part of 2015. Additionally, the annual change in the CPI for this group is expected to jump towards the end of 2014, with reversal of the downward shock observed at the end of 2013. In 2015, the annual change in food prices should stay above 2.5%, a higher level than was expected three months ago.

As such, the central forecast for inflation overall, according to the MMT, rose significantly towards the end of 2014 and in 2015, compared to what

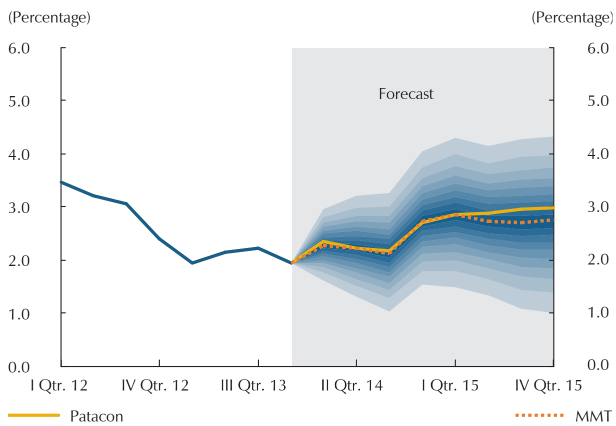
There is still uncertainty as to how the external context will behave.

was outlined in the September report, and moved closer to 3.0%. However, for first three quarters of 2014, it is less. A similar result was obtained with Patacon, but now the paths converge toward each other more clearly than in the previous report. The central forecast for non-food inflation showed similar changes, rising towards the end of 2014 and in 2015, but not above 3.0%.

2. Risk Balance

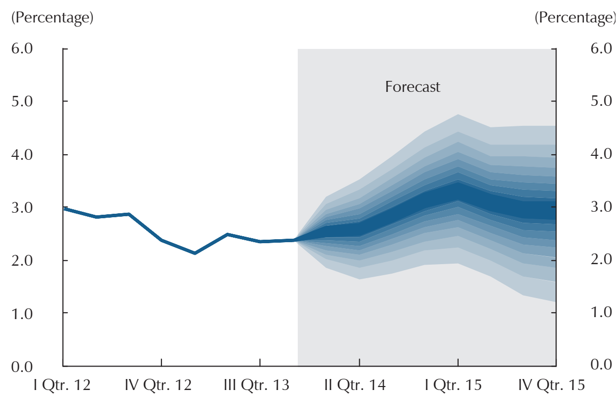
The risk balance estimated for overall consumer and non-food inflation is shown in the fans charts (Graphs 40 and 41). This report reflects continued uncertainty over how the international context will evolve, particularly its possible impact on the exchange rate, on the evolution of prices for food and regulated items, and on domestic growth. These circumstances have kept some ample forecast ranges in the inflation fan charts, as was the case in the previous report.

Graph 40
Headline Inflation Fan Chart



MMT: Pass-Through Mechanisms Model
Patacon: Policy Analysis Tool Applied to Colombian Needs (Dynamic stochastic general equilibrium model)
Source: *Banco de la República*

Graph 41
Non-food Inflation Fan Chart



Source: *Banco de la República*.

Even so, the fan chart is now symmetrical, indicating a decline in the likelihood that inflation will be within the downward scenario, compared to what was considered three months ago. In other words, uncertainty linked to the downside risk still exists, but is less, while the upward risk, partly determined by the impact normalization of monetary policy of the United States might have on the emerging market economies and their exchange rates, has increased significantly.

The following are the main downside risks considered in this report.

Less global growth than is considered in the central forecast:

Although the developed economies showed clearer signs of recovery and momentum in the final quarter of 2013, coupled with a less uncertain out-

The possibility that tapering of the stimulus program in the United States might have adverse effects on global growth cannot be ruled out.

look for monetary and fiscal policy in the United States, one cannot rule out the possibility of a setback in global economic performance, relative to what is contemplated in the central forecast. This is because one sees a considerable degree of banking fragility in a number of countries on the periphery of the euro area, and they could have difficulty implementing the financial integration programs. Moreover, the mild slowdown observed in China could be aggravated by the effects of any eventual government action to deal with the problems of the shadow banking system. On the other hand, tapering the monetary stimulus program might have more adverse effects on global growth than anticipated, both in the developed economies and particularly in the emerging economies that are highly susceptible to movements in capital flows.

In the case of the Colombian economy, the appearance of these risks would result in weaker external demand, less consumer and investor confidence, and more of a drop in international prices for raw materials, all of which can lead to lower domestic growth and a more negative output gap than estimated. In principle, a situation of this sort would create downward pressure on overall inflation, provided the effects on the exchange rate are not offset, as mentioned later in this report.

Less domestic demand than is considered in the central forecast:

Investment growth in 2014, including investment in civil works, might be less than expected when considering the problems normally involved in the implementation of large infrastructure projects, such as those that have been announced. This demand has a major impact on the rest of the economy and, if it does not materialize, GDP growth could be less than 4.3%. This forecast assumes the expansion in civil works would be slightly less than what would have been the case in 2013, but high all the same and beyond the increase in most of the GDP components on the demand side. Less domestic demand would mean a more negative output gap and not as much upward pressure on consumer prices.

More of a decline in international raw material prices than is considered in the central forecast:

One downside risk to inflation is a larger than expected decline in international commodity prices.

International raw material prices might decline more than expected, because the global supply of these goods is sharply higher as a result of investment efforts made in recent years. Oil is a case in point; the development of new extraction technologies has significantly increased production in the United States and in other countries. International food prices run a similar risk stemming from the increase in inventories during 2013, thanks to bumper

The central forecast for inflation does not include possible reductions in certain public utility rates.

harvests and the possibility of relatively favorable weather during 2014 in several producing regions, as forecast by experts.[12]

Additionally, the increase in interest rates expected for 2014, due to normalization of monetary policy in the United States, can also result in lower prices for raw materials. It is worth noting that commodities became an attractive investment alternative in recent years, given the low yields on most financial assets.

For Colombia, commodity price reductions would imply lower prices for tradable goods, including food and most regulated items. They also would imply lower shipping and production costs for a wide range of consumer goods. In principle, any further decline in raw material prices would exert temporary downward pressure on consumer inflation in Colombia; however, if inflation expectations are altered, the impact could be permanent.

Lower price adjustments for some regulated services due to changes in the regulatory framework:

A reduction in the fixed rates charged for some public utilities might be authorized in 2014, when Bill 101/2012 takes effect (it was approved already in the first round of debates). The new rate structure for garbage collection announced by the Ministry of Housing in June also would take effect this year, providing rate cuts to over 80% of the population in nearly 350 municipalities throughout the country.[13] These reductions were not fully taken into account in the central forecast.

The following are the main upside risks:

Tapering the monetary stimulus program in the United States can produce upside risks to inflation through higher-than-expected depreciation.

More depreciation in the exchange rate than anticipated:

It is still highly uncertain what effect complete elimination of the monetary stimulus program would have on capital flows to emerging economies and on the performance of their exchange rates. Although the Colombian economy is less vulnerable than other emerging markets, due to relatively low external imbalances and less dependence on foreign debt to finance them, contagion that might batter the sovereign risk premium and lead to more depreciation than projected in the central forecast cannot be ruled out.

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12 See the Economist Intelligence Unit (2014). "World Commodity Forecast: Foods, Feedstuffs and Beverages", February.

13 See Resolución CRA 643/ 2013 (on the new garbage collection rate schedule).

The risk of an increase in food prices persists.

This situation would generate additional pressures on the cost of raw materials and imported food, and on prices for tradables and regulated items in general. These effects could prevail over downward pressure stemming from less eventual growth because, in this case, no major disadvantages to external demand would be expected and the Colombian economy would not be operating below its potential capacity.

Major increases in the price of food produced in the country:

Although domestic agricultural supply conditions remain favorable, there is still the risk of an increase in food prices, which is considered higher in this report than was the case last quarter. On one hand, the current relatively low prices might discourage production and generate eventual increases that would be higher than anticipated in the central forecast, especially for perishable foods. The added pressure would be felt in the second and fourth quarters. On the other hand, the reduction in the cattle herd, estimated at 500,000 head in the last two years according to the Colombian Federation of Cattlemen (FEDEGAN), coupled with the increase in slaughtering so far this year, could result in a lower supply of beef and higher prices in the coming months. Moreover, the measures implemented recently to safeguard and ensure minimum prices for certain crops might lead to higher prices than anticipated. In principle, all these shocks are temporary; however, they could have permanent consequences if they influence inflation expectations.

After weighing the different risks shown in the fan charts, one can say the likelihood of headline inflation staying within the range of 2.0% to 4.0% in 2014 and 2015 is still high. Importantly, the forecast in this report assumes an active monetary policy, with interest rates that are adjusted to ensure compliance with the long-term target for inflation.

V. Risks to Long-Term Macroeconomic Stability

In 2013, housing prices continued to grow at high rates and the current account deficit increased. If these trends are accentuated, the medium-term macroeconomic risk is that unsustainable levels might be reached.

The slowdown in private-sector borrowing continued in 2013. However, the growth rate was superior to that of GDP.

The trend toward depreciation in the RER since mid-2012 accelerated during the second half of 2013.

The international financial crisis showed the monetary policy actions taken to achieve low and stable inflation are necessary, but not enough to ensure sustained economic growth. In fact, prior to the crisis, many developed countries had already achieved price stability; however, they registered macroeconomic imbalances that implied considerable losses in terms of output, employment and welfare when those imbalances were corrected. In that line, previous studies have argued that monetary policy, in coordination with general economic policy, should consider monitoring any imbalances that might place the economy in a vulnerable position.

In recent years, a number of agencies have made monitoring potential sources of macroeconomic vulnerability part of their agenda.

In recent years, some international organizations, central banks and analysts[14] have made monitoring potential sources of vulnerability as part of their agendas, by analyzing key economic variables and building certain kinds of indicators. Along this line, the technical staff at *Banco de la República* monitors developments in the current account deficit, the real exchange rate, private debt and housing prices. It also calculates the mac-

14 Such as the IMF, the Bank for International Settlements (BIS), the ECB and others.

The technical staff at Banco de la República monitors developments in the current account deficit, the real exchange rate, private debt, and housing prices.

roeconomic imbalance index (MII) as one tool that allows for a combined analysis of possible imbalances in these variables.

In Colombia, prior to the global financial crisis in late 2008, credit growth was high, the real exchange rate was appreciating, and the current account deficit was growing. Long-term measurements of these variables suggested the presence of possible imbalances, especially in credit market. Most of those imbalances were corrected in 2009, largely due to the effects of the crisis and the macro-prudential policies that were implemented.[15]

After 2009, capital inflows to the emerging economies, including Colombia, were favored by low international interest rates and the sharp increase in global liquidity. High oil prices led to record-high terms of trade, national income grew, and FDI inflows increased, particularly for the mining sector.[16] Consequently, the real exchange rate resumed its trend toward appreciation, which was not reversed until mid-2012.

On the domestic scene, confidence recovered after the international financial crisis, and borrowing again increased at high rates. The largest momentum was in consumer loans, which did not enter a slowdown phase until mid-2012 and were still growing more than nominal GDP at the time this report was written. Housing prices (new and existing), which have posted significant growth rates since 2012, reached historically high levels in 2013.

The extent to which less international liquidity impacts emerging economies will depend on their on fundamentals.

In the next few years, it is to be expected that possible imbalances in the developing countries,[17] generated partly by ample international liquidity, would enter a period of correction insofar as the advanced economies require a less expansionary monetary policy. How this normalization will impact the emerging economies depends on certain fundamentals that enable them to deal with reduced capital inflows, higher external borrowing costs, and a possible increase in risk premiums and depreciation of their currencies. In the case of Colombia, although a number of factors allow for optimism in the face of declining international liquidity, there continue to be risks that cannot be ignored. They are described in the following section.

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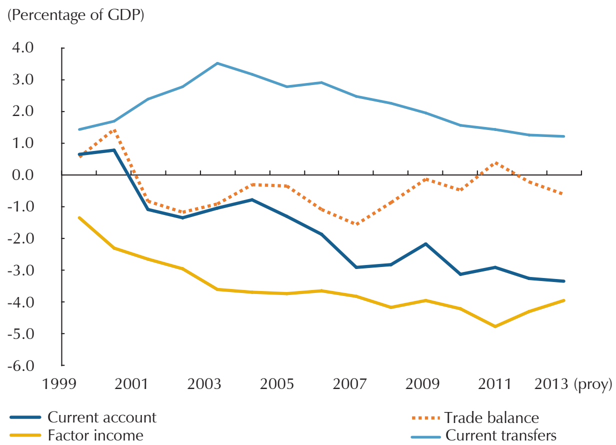
15 These include, among others, the increase in reserve requirements, non-interest bearing deposits for foreign debt operations and portfolio investment with foreign capital, and modification of *Banco de la República*'s tool for exchange rate intervention.

16 This led to more of an increase in investment than savings, thereby widening in the current account deficit above and beyond its historical average.

17 Situations such as high current account deficits, an appreciated exchange rate, high growth in credit and in housing prices were common factors in most developing countries.

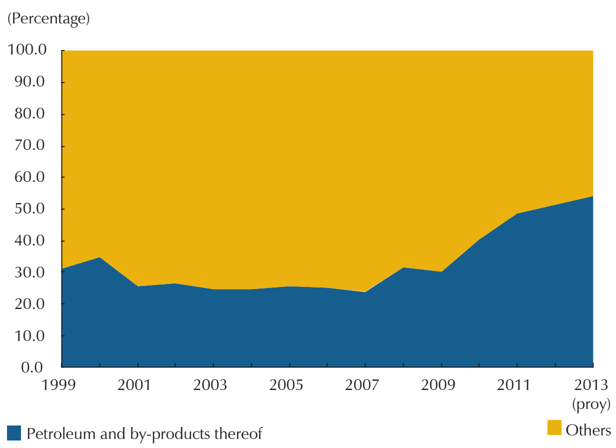
A. THE CURRENT ACCOUNT AND THE REAL EXCHANGE RATE

Graph 42
Current Account Components



Fcst: Forecast
Source: *Banco de la República*

Graph 43
Merchandise Exports
(Percentage share)



Fcst: forecast
Source: *Banco de la República.*

The current account deficit relative to GDP, which averaged 0.9% annually between 2000 and 2006, widened to an annual average of 2.9% between 2007 and the estimate for 2013.[18] (Graph 42). This expansion has been consistent with external funding, which increased, in terms of GDP, from 1.6% on average in the first period to 4.2% in the second. FDI in the mining-energy sector is a particularly important part of the rising capital flows into the country.

In terms of the current account, the mining-energy sector has been in a surplus position, because earnings remittances have been more than offset by the exports it generates, especially oil. International prices for this commodity have been high since 2008 and have encouraged additional investment and development in this sector. As a result, foreign sales of crude oil and by-products thereof increased from 27% of total exports, in dollars, in early 2000 to 54% in 2013 (Graph 43).

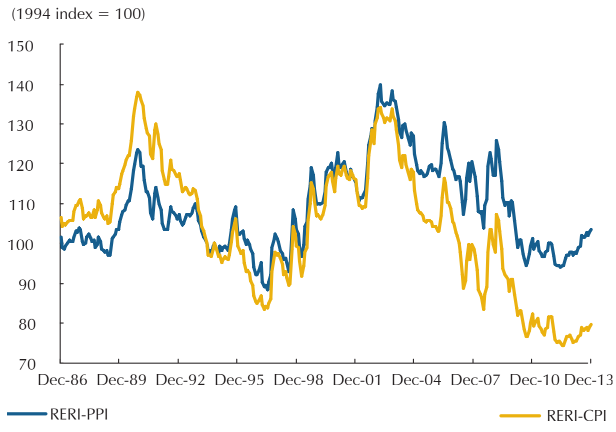
The current account deficit is expected to widen slightly in 2014, amid a scenario of lower international oil prices and a recovery in the country's imports (as explained in Chapter I of this report). According to the projections for the balance of payments, this larger deficit would continue to be financed with FDI resources (as has been the case for the last eight years), which will be directed not only to the mining-energy sector, but also to other branches, due to the TLCs signed by Colombia in the last few years.[19] This is despite less international liquidity and some increase in the cost of external financing.

As for evolution of the real exchange rate (RER), there has been a trend toward appreciation of the peso since early 2000, with some interruptions, particularly during the international crisis. The increase in global liquidity in recent years, which favored capital inflows, reinforced real appreciation

18 The lowest deficit on record during this period (2.17% of GDP) was in 2009.

19 In the case of Mexico, for example, the first consequence of the FTA with the United States and Canada was an increase in FDI.

Graph 44
Real Exchange Rate Indexes



Source: *Banco de la República*

of the Colombian peso. That trend reversed itself as of mid-2012 and, during 2013, the average RER depreciated 2.3% in annual terms, if the CPI is used as a measure of prices, and 5.1%, if the PPI is used, partly due to more overall uncertainty about tapering of the Fed's monetary stimulus (Graph 44). This performance is consistent with a deterioration in terms of trade, an increase in the relative productivity of other countries compared to that of Colombia, and a lower interest rate differential. According to estimates by *Banco de la República*, depreciation of the real exchange rate in recent months has led to a correction in its mismatch, a trend that could continue insofar as global liquidity levels remain less expansive.

One significant risk the Colombian economy could face in the future is a sharp drop in oil prices, for example, to levels that are low and not profitable for investors. While analysts assign a low probability to this risk, it would have negative consequences for the balance of payments, the foreign exchange market, and national revenue if it were to materialize. In this scenario, FDI for the oil sector would decline, as would the country's commodity exports. However, in this situation, the current account would have an automatic stabilizer, since the factor income of oil-sector companies with FDI would decline as well.

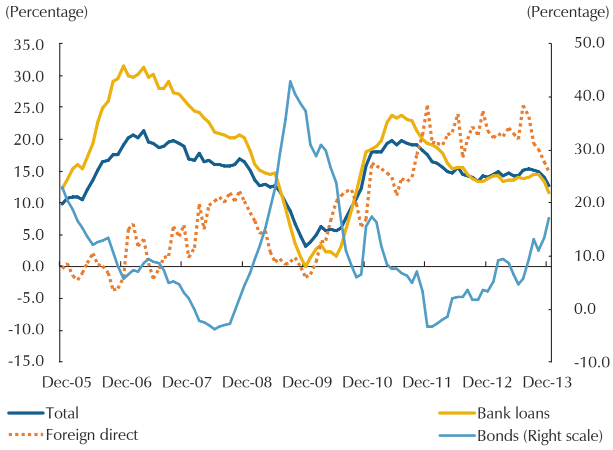
In the case of Colombia, several factors allow for optimism in the face of an eventual external shock. One of these factors is low inflation with expectations anchored to the long-term target, which provides leeway for monetary policy.

A shock such as the one described in the preceding paragraph could lead to major depreciation of the peso, which would encourage exports and discourage imports, besides inducing additional pressure on prices for tradables. In the face of this last plausible scenario, low inflation expectations anchored to the long-term target are favorable conditions found in the Colombian economy. Moreover, financing the current account deficit, especially through FDI, can be qualified as less susceptible to external shocks that might prompt sudden capital outflows. On the other hand, more international reserves, coupled with the flexible credit line that Colombia has agreed with the IMF, constitute additional support to softening the impact of an adverse external shock. Even so, an extremely sharp drop in oil prices would be a serious blow to the nation's revenues, with a particularly negative impact on public finances and the sectors that provide services to the oil industry.

B. BORROWING

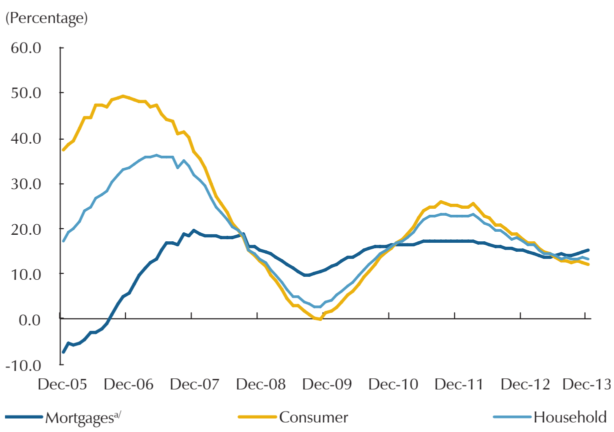
The commercial loan portfolio grew at an annual rate above 30% between 2006 and 2007, while consumer loans rose by more than 40%. Both these

Graph 45
Commercial Borrowing[a/]
(Annual percentage change, monthly average)



a/ F/C at fixed exchange rate, December 2012 base
Source: Office of the Financial Superintendent of Colombia; Calculations by *Banco de la República*.

Graph 46
Household Loan Portfolio
(Annual percentage change, monthly average)



a/ Includes securitizations
Source: Office of the Financial Superintendent of Colombia; Calculations by *Banco de la República*.

levels are above their historical averages. Although the overall loan portfolio experienced considerably less growth during 2009, it again showed annual variations near 25% in 2011. By then, broad international liquidity also allowed for a sustained increase in direct foreign borrowing. Private-sector borrowing slowed during 2013, largely because of less of an increase in corporate indebtedness. This last sector, in particular, significantly reduced its direct foreign borrowing and bank credit, while bond issuances continued (Graph 45).

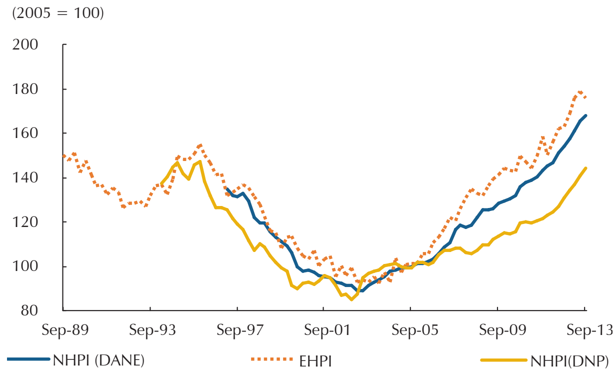
The second half of 2013 saw the growth in household debt stabilize at annual levels near 13%, with a slowdown in consumer credit and a further increase in mortgage loans (Graph 46). The latter ended the year with growth rates close to 15%, partly due to government programs to facilitate home financing. Although the mortgage portfolio-to-GDP ratio has increased, the financial burden on households related to this type of credit remains low.[20] The slowdown in consumer credit since the beginning of 2012 continued during 2013 (the annual increase went from 18% at the end of 2012 to about 12% in December 2013). Furthermore, the quality of this type of portfolio and its respective risk indicators improved during the year.

When considering consumer and home loans as a whole, the level of household borrowing is high compared to the average for the last twenty years. Consequently, although the medium-term prospects for the economy are good, households are more vulnerable to adverse shocks that might affect their creditworthiness, such as a rise in the unemployment rate. Also, if access to resources abroad were to be curtailed to an important extent, companies with a good credit rating would prefer to borrow in pesos, [21] leaving families and small businesses affected by reduced access to domestic credit.

20 See the September 2013 edition of the *Financial Stability Report*.

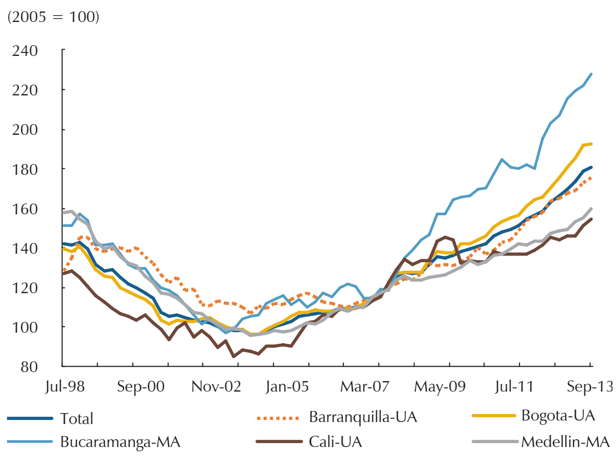
21 See the September 2013 edition of the *Inflation Report*.

Graph 47
Housing Prices Relative to the CPI



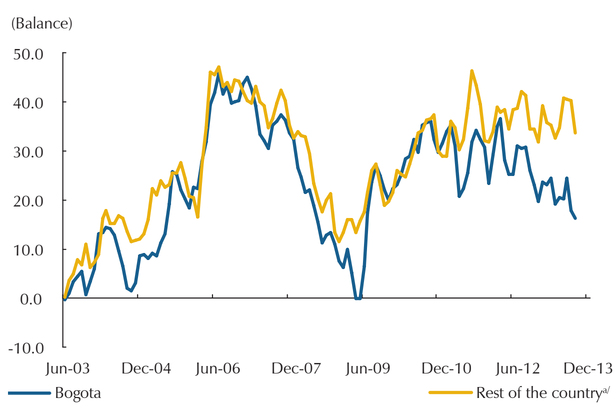
NHPI: New Home Price Index
EHPI: Existing Home Price Index
Source: DANE, DNP and *Banco de la República*.

Graph 48
New Home Price Index in Different Cities, Relative to the CPI



UA: urban area
MA: metropolitan area
Source: DANE

Graph 49
Willingness to Purchase a Home
(3rd order moving average)



a/ Includes Medellín, Cali and Barranquilla.
Source: Fedesarrollo (Consumer Opinion Survey)

C. HOME PRICES

Home prices (for new and existing homes) trended downward after the crisis in Colombia in the late nineties. However, as of 2006, that trend was reversed and prices climbed to new record highs (Graph 47). According to several indicators, home prices accumulated real increases of over 50% compared to what was observed in 2005. The high growth (relative to CPI) witnessed in the new home price index (NHPI-DANE) and the existing home price index (EHPI) during early 2013 (9.7% annually for the former and 12.8% for the latter) slowed in the third quarter (9.0% for NHPI-DANE and 8.1% for EHPI).

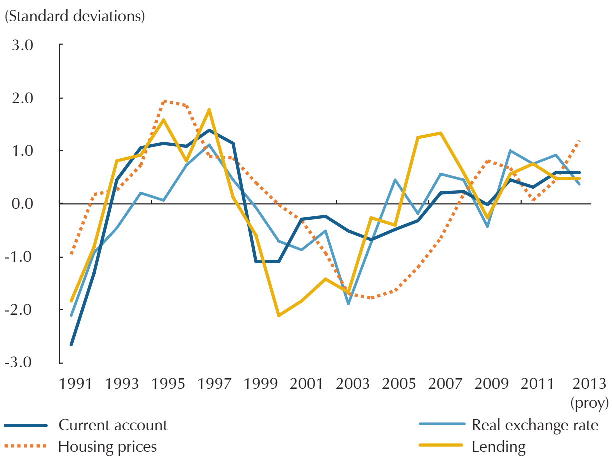
In general, the rise in home prices has been well above the nationwide inflation rate. For example, new home prices show the adjustments in Bucaramanga have surpassed the national total, followed by those in Bogotá (Graph 48). The Bogotá market, besides being the largest and the one that gained the most in value during the course of 2013 up to September, is the only market where new home prices slowed during the third quarter. Although there is still a considerable shortage of housing in the nation's capital, some indicators suggest that assets of this type might be becoming less attractive as an investment. Specifically, the variation in rental fees for high-income neighborhoods in Bogotá slowed during the past year, and the willingness to purchase housing has declined steadily since 2011, despite being maintained in the rest of the country (Graph 49).

Some of the determinants of housing demand, such as level of employment, growth in disposable household income and financing terms, are expected to remain favorable in the medium term. In fact, the financial sector has not changed its conditions for granting loans and the household financial burden is still relatively low. However, lending institutions have said debtor creditworthiness is the main impediment to extending more credit.[22] Also, some of the government's programs that have succeeded in boosting the demand for housing are expected to end in 2014.

As mentioned in earlier editions of this report, several emerging economies have experienced rising housing prices, meaning this phenomenon has been fueled, in part, by ample international liquidity, in addition to factors related to domestic supply and demand. Accordingly, to the extent that monetary policy in the advanced economies begins to normalize, assets apart from housing, such as investments in other countries, could have better prospects for profitability and help to reduce the pressure on housing prices.

D. LONG-TERM ESTIMATES AND THE MACROECONOMIC IMBALANCE INDEX

Graph 50
Gaps in the Current Account, Real Exchange Rate, Housing Prices and Lending



Fcst: forecast
Source: *Banco de la República.*

In 2013, the differences between actual levels and the long-term estimates for the current account, the RER, lending and housing prices continue to suggest the presence of macroeconomic imbalances.[23] The extent of the possible imbalance in the current account and credit is similar to the estimate for 2012; in the RER, one sees a correction and in housing prices, an expansion (Graph 50).

The macroeconomic imbalance index (MII), composed by the standardized gaps in these variables,[2424] suggests the aggregate imbalance widened slightly in 2013 compared to 2012. Even so, it is still below the values on record prior to the crisis in the nineties (Graph 51). Compared to the estimate presented in the previous edition of the *Inflation Report*, the aggregate imbalance would be slightly higher. This is because the correction in the RER gap appears to have been less than expected and the increase in housing prices was more than the estimate in September.

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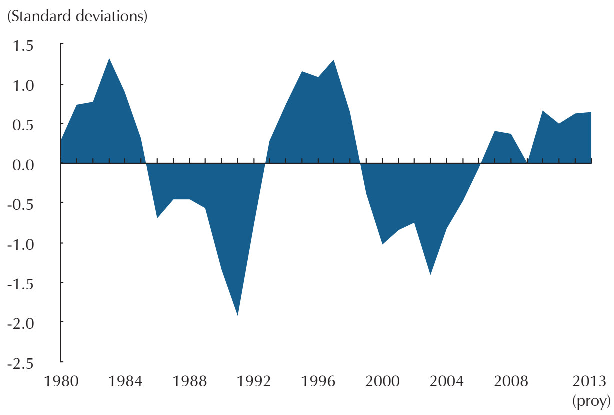
22 See the September 2013 of the *Financial Stability Report* and the December 2013 edition of the *Report on the Credit Situation in Colombia*, both published by *Banco de la República*.

23 Positive values indicate an imbalance. For the RER, this is calculated as the long-term level minus the actual value.

24 For a detailed explanation, see Arteaga, Huertas & Olarte (2012). "Índice de desbalance macroeconómico," *Borradores de Economía*, No. 744, *Banco de la República*.

Graph 51
Macroeconomic Imbalance Index (MII)



Fcst: forecast
Source: *Banco de la República*

For 2014, as indicated in previous sections, the gap in the current account could widen and, if the momentum registered in 2013 were to continue, the RER and credit gaps would tend to close. As for housing prices, increased expectations of currency depreciation and external profitability, as well as less demand-side stimulus to housing, could ease pressure on the market.

In the Colombian case, a number of factors allow us to be optimistic in the face an external shock, such as the decline in international liquidity. First of all, if the Fed continues to taper its asset purchases, it is because it perceives that the economy in the United States (Colombia's largest trade partner) continues to recover. In addition to improving our prospects for external demand, increased momentum in the US economy, among other factors, can help to keep oil prices at favorable levels. Secondly, the structure of the country's external liabilities concentrated in FDI, together with indicators of adequate levels of international reserves; reduce the vulnerabilities to sudden capital outflows. Last but not least, low inflation with expectations anchored to the long-term target give monetary policy room of maneuver to react to different shocks.

Attachment

Macroeconomic Forecasts by Local and Foreign Analysts

The latest forecasts by local and foreign analysts concerning the major economic variables for 2014 and 2015 are summarized in this section. At the time they were consulted, the analysts had data up to January 2014. These estimates were obtained through an electronic survey and do not pertain to those made by *Banco de la República* or its Board of Directors (BDBR).

1. Forecasts for 2014

The local and foreign analysts expected 4.6% GDP growth in 2014, on average. In both cases, the figure is above the one reported in the *Inflation Report* last quarter.

Table A1
Forecasts for 2014

	Real GDP Growth	CPI Inflation	Nominal exchange rate end of:	Nominal DTF (Percentage)	Fiscal deficit (Percentage of GDP)	Unemployment Rate in the Thirteen Main Cities (Percentage)
	(Percentage)					
Local Analysts						
Alianza Valores	4.3	3.7	2,200	4.9	2.4	8.1
Anif [a/]	4.8	3.0	n.d.	4.7	2.3	9.3
Banco de Bogotá	4.5	2.9	1,950	4.8	n.d.	9.7
Bancolombia [a/]	4.4	3.0	2,025	4.1	2.4	8.8
BBVA Colombia [a/]	4.7	2.9	1,960	4.7	2.3	9.4
Corficolombiana	5.0	3.0	1,875	5.0	1.0	9.2
Corpbanca [b/, c/]	4.5	2.9	1,970	5.0	2.4	8.4
Corredores Asociados	4.5	2.5	1,975	4.5	2.3	8.4
Correval	4.6	3.0	1,900	5.0	1.0	9.2
Davivienda [a/]	4.5	2.6	2,050	4.5	2.3	9.4
Fedesarrollo [a/]	4.6	3.3	1,995	4.9	2.3	9.5
Ultrabursátiles	4.2	2.7	2,000	5.1	n.d	8.8
Average	**4.6**	**3.0**	**1,991**	**4.8**	**2.1**	**9.0**
Foreign Analysts						
Citi [a/]	4.6	2.8	2,075	4.8	0.7	8.5
Deutsche Bank	4.3	3.5	1,980	3.5	2.3	9.5
Goldman Sachs	4.7	3.0	2,060	4.3	2.3	n.d.
JP Morgan	4.8	2.9	n.d.	4.5	1.2	n.d.
Average	**4.6**	**3.1**	**2,038**	**4.3**	**1.6**	**9.0**

n. d.: Not available
a/ The projected deficit pertains to the national government
b/ Average unemployment rate for the year
c/ Formerly Banco Santander
Source: *Banco de la República* (electronic survey).

Table A2
Forecasts for 2015

	Real GDP Growth (Percentage)	CPI Inflation	Nominal Exchange Rate End of:
Local Analysts			
Alianza Valores	4,0	3,3	2.350
Anif	4,5	3,0	n.d.
Banco de Bogotá	5,0	3,0	2.000
Bancolombia	4,6	3,4	2.150
BBVA Colombia	5,1	3,1	1.980
Corficolombiana	5,0	3,0	1.925
Corpbanca [a/]	4,7	3,0	2.000
Corredores Asociados	4,5	3,0	2.000
Correval	5,3	3,0	1.900
Davivienda	n.d.	n.d.	n.d.
Fedesarrollo	4,6	3,4	2.026
Ultrabursátiles	4,5	3,0	2.300
Average	4,7	3,1	2.063
Foreign Analysts			
Citi	5,0	3,5	2.100
Deutsche Bank	4,6	n.d.	n.d.
Goldman Sachs	4,5	3,0	2.122
JP Morgan	4,5	3,0	n.d.
Average	**4,7**	**3,2**	**2.111**

n. d.: not available
a/ Formerly Banco Santander
Source: *Banco de la República* (electronic survey).

As for inflation forecasts, the local and foreign analysts predict price increases of 3.0% and 3.1% by the end of the year, respectively. These amounts are within the target range set by the Board of Directors for 2013 (from 2.0% to 4.0%).

In terms of the exchange rate, the local analysts expect the representative market exchange rate (RMER) to average $1,991 by the end of the year, compared to $1,897 estimated in the survey considered in the last edition of this report. The foreign analysts expect the RMER to be near $2,038 at the close of the year.

With respect to the rate on time deposits (DTF), the local analysts forecast 4.8%, on average. They also expect the unemployment rate to be 9.0%.

2. Forecasts for 2015

The local and foreign analysts forecast 4.7% growth in 2015. As for inflation, the local and foreign analysts are forecasting 3.1% and 3.2%, respectively. For the exchange rate, the local agencies expect it to average $2,063 while the foreign analysts anticipate $2,111.

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