Inflation Report

March 2016*

** Presented by the Technical Staff to the Board of Directors for its meeting on April 29, 2016.

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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 output growth 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. BDBR 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 within the time horizon where the policy operates and that deviation is not 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 in a press bulletin posted immediately on Banco de la República's website (www.banrep.gov.co).

Inflation reports are published quarterly and intended to 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 growth in output.

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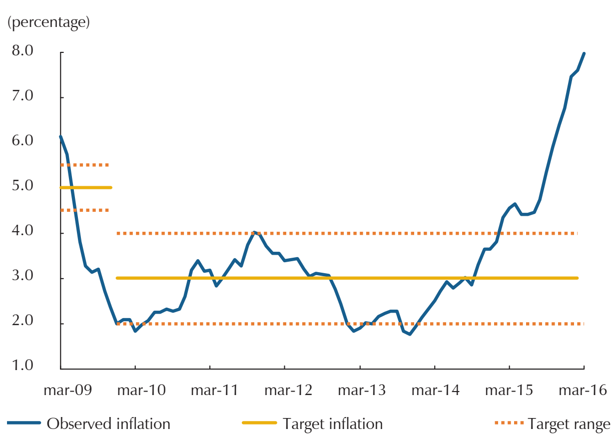
Developments in Inflation and Decisions on Monetary Policy

In March, annual consumer inflation was 7.98% and the four measures of core inflation averaged 6.29% (Graph A). The rise in inflation during the first quarter, which was higher than expected, can be attributed to the sharp hike in food prices, the partial pass-through of nominal depreciation to consumer prices and raw material costs, and the activation of indexation mechanisms for certain items in the family basket of goods and services, such as education, health care and some public utilities. Analysts expect inflation at one and two years to reach 4.5% and 3.8% respectively, while inflation expectations estimated from government debt bonds at two, three and five years are between 4.4% and 4.8%.

Although so far in this century the pass-through of peso depreciation to consumer prices has been limited, the exchange rate is high and could continue to have a lagged impact on prices for imported goods and services. Likewise, lower food supplies are expected up until the second quarter of 2016, when the weather is expected to return to normal. In this context, although both shocks are temporary, they still can exert upward pressures on inflation and its expectations, and continue to activate undesirable indexation mechanisms.

Graph A
Total Consumer Inflation



Sources: DANE and Banco de la República.

With respect to worldwide economic activity, several of Colombia's trading partners, mainly the commodity-producing economies, have experienced weaker than expected growth. As such, the momentum in foreign demand for our export products is likely to be weak in 2016 and lower than its 2015 level.

In the United States, it is now more likely that the tightening in monetary policy will occur more slowly. The US dollar has depreciated in an environment of improving global liquidity conditions, increases in oil prices and some reductions of risk premia for the emerging market economies. There is a great deal of uncertainty on the future behavior of oil prices. In this context, although the deterioration in the terms of trade and national revenue has subdued somewhat, it is uncertain how long these improvements will continue in the remainder of the year.

Colombia's foreign trade and its financial account reflect the effects of a weak external demand, lower oil prices, and a higher exchange rate. Exports in dollars declined 32.0% y/y during the first quarter of 2016, mainly due to the drop in foreign sales of mining and energy products (-54.0% y/y). The value of imports fell 26.0% y/y during the first two months of the year. The current account deficit is expected to decline to about USD 16 billion during 2016, given the projected drop in imports of goods and services and the estimated reduction in profits remitted by foreign companies.

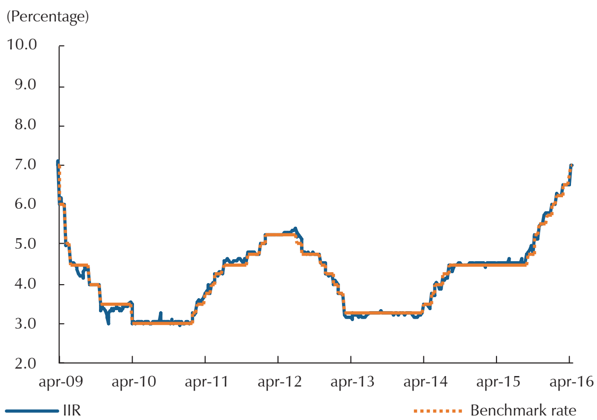
Domestically speaking, the figures for the first quarter of 2016 indicate household consumption would have grown at a pace similar to that on record at the end of 2015, while investment would have slowed. The real drop in imports would have exceeded the decline in export volumes. On the supply side, the indicators for industry, retail sales and coffee production suggest favorable performance, while those for mining signal deterioration.

Given all these factors, the technical staff at Banco de la República anticipates economic growth will likely amount to 2.5% in the first quarter of 2016, within a range of 2.8% to 3.2%. The forecast range of 1.8% to 3.2% for all of 2016 was maintained, and the most probable figure was reduced from 2.7% to 2.5%. As for inflation, the projections developed by the technical staff, which takes into account an active monetary policy, suggest inflation will decline in the second half of the year and end 2016 at around 6.0%, before converging towards the target range in 2017.

In short, the new data indicate the Colombian economy continues to adjust in an orderly manner to the strong shocks registered since mid-2014. The risk of an excessive slowdown in domestic demand remains moderate, while expenditure continues to exceed the national income, which is reflected in a high current account deficit. Inflation and inflation expectations have been affected and have been pushed to high levels by peso depreciation, more intense El Niño weather and the activation of certain indexation mechanisms.

In this environment, the response from monetary policy must consider that these price shocks are transitory. It also must be oriented to ensure that inflation converges to the target range of 3.0% ± 1 percentage point in 2017. As a result, the Board of Directors has taken steps to prevent the reaction of inflation and inflation expectations from being more pronounced and prolonged than the size and duration of these shocks. Therefore, the Board felt it was appropriate to raise the reference interest rate by 25 basis points in each of the first three months of the year and by 50 basis points in April.

Graph B
Banco de la República's Benchmark Interest Rate and the Interbank Interest Rate (IIR)
(2009-2016) [a/]



a/ The graph pertain to data for business days; the last figure is for 13 May 2016.
Sources: Financial Superintendence of Colombia and Banco de la República.

The increase in the reference rate and its effect on growth in domestic demand, coupled with real devaluation of the peso, also contribute to an orderly correction of the country's external imbalance (Graph B).

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Inflation Report

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I. The external situation and the balance of payments

Forecasts for Colombia's trading partners' growth for all of 2016 were reduced again in this report, largely due to further deterioration in the economic situation of the Latin American countries.

The average oil price forecast for 2016 remained at USD 35 per barrel. Despite recent increases, the perception is that the downside risks dominate. Therefore, further declines during the remainder of the year are expected.

Since mid-February, there has been less risk aversion in international financial markets. This favored a drop in Colombia's risk premium and appreciation of the peso against the dollar.

The current account deficit as a proportion of GDP increased from 5.2% in 2014 to 6.5% in 2015. However, in dollars, it declined by USD 668 m. A correction in the deficit, both in dollars and in proportion to GDP, is expected for 2016.

A. THE INTERNATIONAL SITUATION

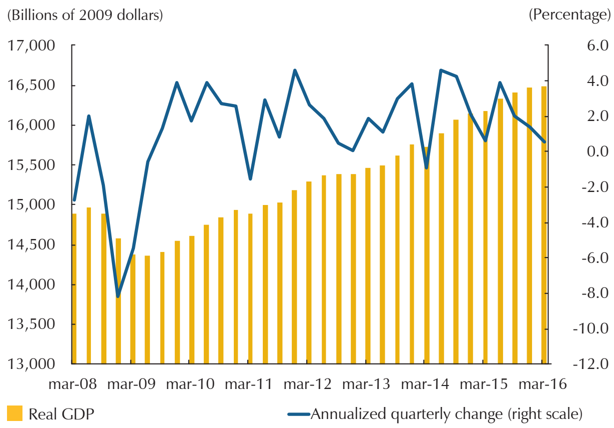
1. Non-financial Activity, Inflation and Monetary Policy

The figures at hand for the first quarter of 2016 confirm weak economic growth in Colombia's major trading partners. This, in turn, remains an obstacle to the country's exports. This sluggishness has been more pronounced in the emerging economies that are net exporters of commodities, especially those in Latin America, which presented historically low rates of expansion or even contractions in their output. On the other hand, the United States and the euro zone grew at a modest pace.

The figures available for the first quarter of 2016 confirm the weakness of economic growth on the part of Colombia's major trading partners.

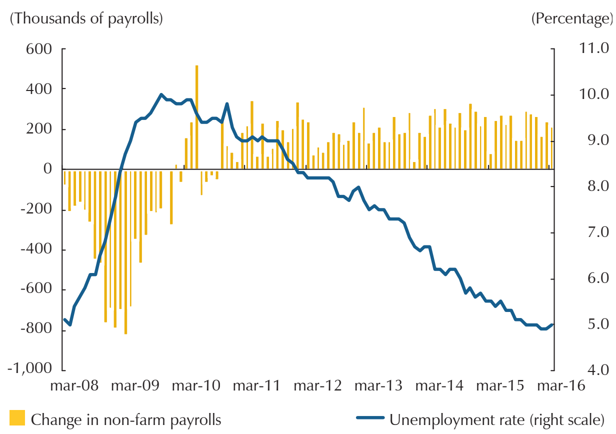
In the case of the United States, the initial estimate of gross domestic product (GDP) for the first quarter showed it slowed to 0.5% annualized quarterly (a.q.), compared to 1.4% a.q. three months earlier (Graph 1). With respect to the different components of demand, weaker consumption

Graph 1
Real GDP in the United States



Source: Bureau of Economic Analysis.

Graph 2
Unemployment and Job Creation Rates in the United States



Source: Bloomberg.

was salient, having gone from 2.5% a.q. growth at the end of 2015 to 1.9% a.q. at present. This represents less momentum than was forecast in previous edition of this report. Furthermore, net exports and non-residential investment decelerated, since they continue to be affected by a strong dollar, weakness in external demand, and global economic and financial uncertainty. The only items that showed an improvement compared to the fourth quarter of 2016 were residential investment (having gone from 10.1% to 14.9% a.q. growth) and, to a lesser extent, government spending (which went from 0.3 % 1.2% a.q. growth).

Despite the slowdown in non-financial activity in the United States, the job market continued to recover at favorable rates. Job creation has remained dynamic. In fact, nonfarm payrolls increased at an average monthly rate of approximately 209,000 new jobs during the first quarter, bringing the unemployment rate down to 5.0% (Graph 2) and close to what analysts and members of the Federal Reserve (Fed) regard as the long-term equilibrium level for the US economy. Other indicators monitored by the Fed, such as long-term unemployment[1] and the underemployment rate,[2] also continued to improve.

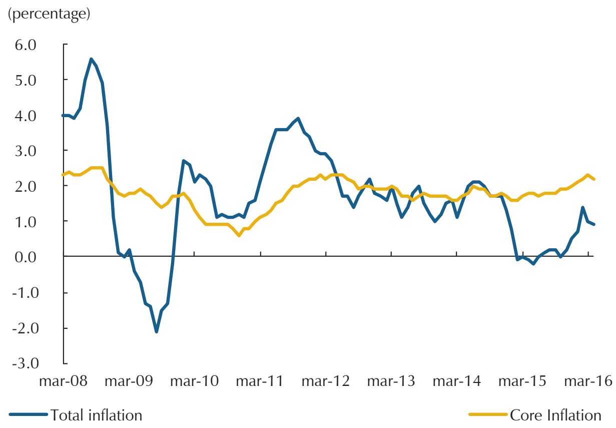
Inflation in the United States showed a rebound in the first quarter compared to what was observed three months earlier, mainly due to a lower base of comparison for the cost fuel. Even so, inflation is still low (0.9% in March) and a long ways from the Fed's goal (2.0%). Excluding food and energy annual inflation showed a slightly upward trend reaching 2.2% (Graph 3).

In this context, the Federal Open Market Committee (FOMC) left its policy rate steady in the 0.25% to 0.50% range, at its meetings in March and April, after increasing it at the end of last year. Moreover, recent

1 The number of people who have not found a job in more than 27 weeks, as a proportion of the total number of unemployed.

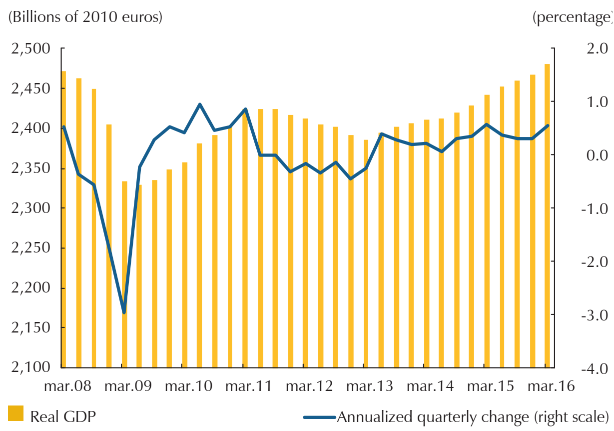
2 The total number of unemployed persons, employees with part-time jobs who indicate they want full-time work, plus those outside the labor supply who would be willing to work if they found a job (marginally linked to the job market), as a proportion of the labor force and those marginally linked to the job market.

Graph 3
Annual Indicators of Total and Core Inflation in the United States



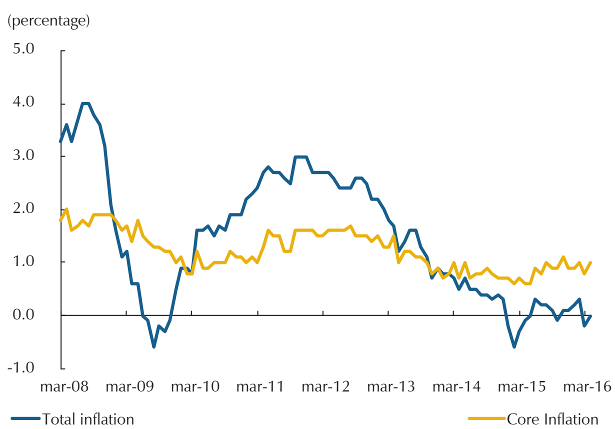
Source: Bloomberg.

Graph 4
Real GDP in the Euro Zone



Source: Eurostat.

Graph 5
Indicators of Total and Core Inflation in Europe



Source: Bloomberg.

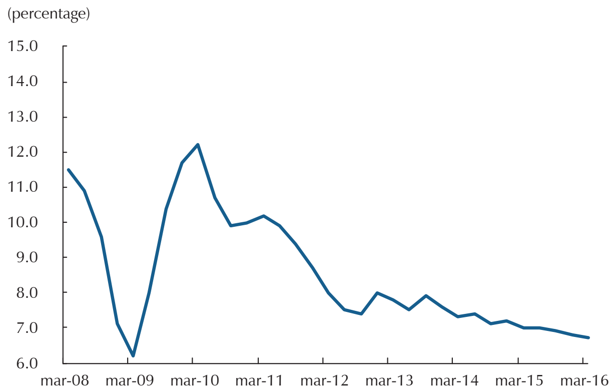
events, namely the uncertainty around the global economic and financial situation, and the slow convergence of inflation in the United States; suggest that the normalization of monetary policy would be more gradual than anticipated in late 2015.

In the euro area, preliminary GDP figures for the first quarter of 2016 show some improvement over what was observed at the end of last year, although the economy continued to grow slowly. Quarterly growth for this period was 0.6%, which compares favorably to 0.3% observed three months before (Graph 4). While it is still not known how GDP performed, by components, the available figures on non-financial activity and consumer and business confidence suggest that the expansion would have been driven by domestic demand, particularly consumption and non-residential investment. Domestic spending would have offset the weakness in net exports, which were affected by a lower external demand.

With regard to price changes in the euro area, March's total inflation was slightly lower than the rate observed at the end of 2015 and stood at 0.0%. Low fuel prices and slow growth in demand explain this behavior. Meanwhile, core inflation remained relatively stable at around 1.0% (Graph 5), which is below the target set by the European Central Bank (ECB) (slightly under 2.0%).

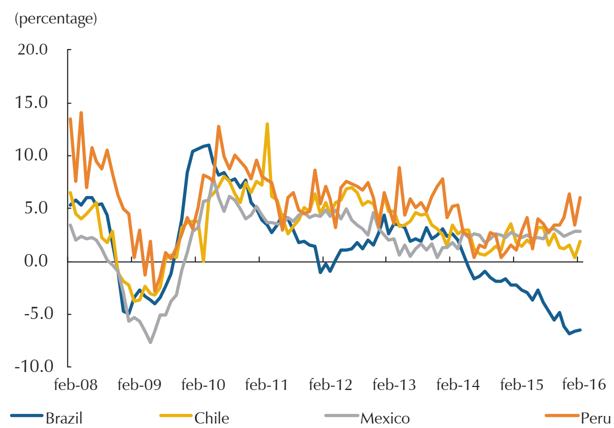
Due to low inflation and the limited demand-side pressure on prices, the ECB decided at its meeting in March to adopt an even more expansionary monetary stance. Accordingly, it reduced its policy rate by 5 basis points (bps) to 0.0%, lowered the rate on deposits (from -0.3% to -0.4%), and increased in the amount of purchases in its quantitative easing program, in addition to including some corporate bonds. It also announced a new round of targeted long-term refinancing operations (TLTRO) in an effort to stimulate the supply of credit in the region.

Graph 6
Annual Real GDP Growth in China



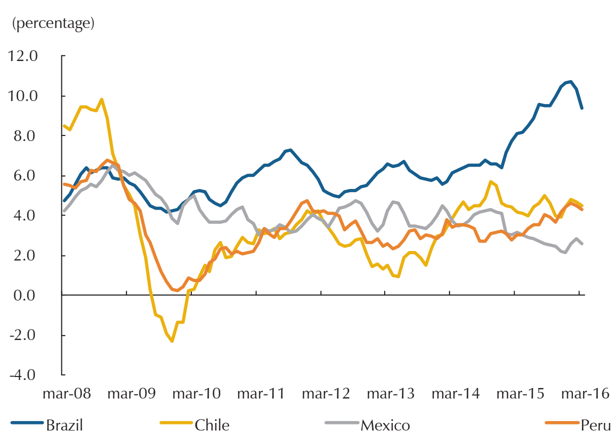
Source: Bloomberg.

Graph 7
Annual Growth in Monthly Economic Activity Indexes for Several Latin American Economies



Source: Datastream.

Graph 8
Annual Inflation in Several Latin American Economies



Source: Datastream.

Meanwhile, the bulk of the emerging countries continue to exhibit less growth than in previous years. In the case of China, annual GDP growth in the first quarter declined slightly compared to the rate observed at the end of 2015, having gone from 6.8% to 6.7% (Graph 6). This is largely the result of milder expansion in fixed asset investment and in industrial production during January and February, despite a rebound in these indicators during March. The increase in retail sales stabilized at rates similar to those seen at the end of last year. It is worth noting that the Chinese government and the country's central bank announced several stimulus measures during the first quarter, which are intended to avoid a more pronounced slowdown in economic activity.

In Latin America, the indicators of non-financial activity for the first two months of the year show mixed performance among the countries, although many still are affected by the sharp decline in their terms of trade (Graph 7). Peru experienced a recovery compared to the low growth rates of the previous year, due mainly to important increases in mining. In Chile and Mexico, the sluggishness observed since early 2014 persists, while Brazil's economy continues to contract sharply. This downturn has not been helped by the country's difficult political situation, which has had an adverse impact on consumer and business confidence. Although there are no recent figures for Ecuador and Venezuela, there is every indication that the recession is worsening in 2016, considering their terms of trade remain low and access to external financing has become more expensive.

By March, the inflation figures for Latin American economies show some reductions versus those observed in the first two months of the year, although most remain at high levels (Graph 8). Inflation in Brazil, Chile and Peru continued above the target ranges in those countries. Mexico is the exception; it still is in the lower part of its target range for inflation. In this environment, the reference interest rates in Mexico and

Peru were raised during the first quarter of the year, while the monetary authorities in Brazil and Chile left theirs unchanged.

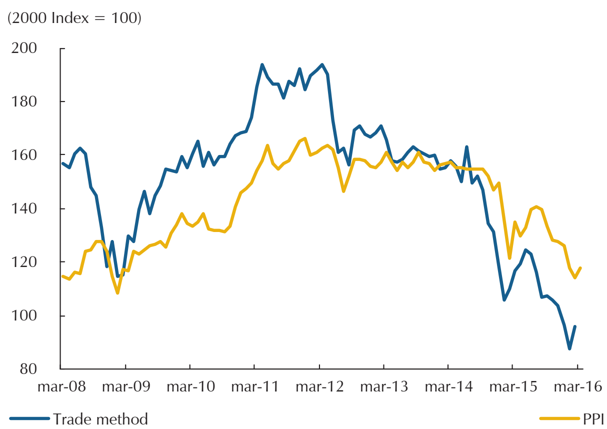
2. Commodity Prices

The prices of Colombia's main export products have increased since mid-February, after falling to minimum values at the beginning of the year. Consequently, March terms of trade data (according to the producer price index method) show some improvement, but are still at low levels relative to those on record in recent years (Graph 9).

On a product basis, the average price of oil (Brent reference) went from USD 32.0 and USD 33.8 per barrel in January and February to USD 39.8 in March and USD 42.9 in April (Graph 10, with figures up to April 27). This increase was explained largely by lower risk aversion in financial markets, the depreciation of the dollar against most of the world's currencies, and fewer prospects of a much sharper slowdown in global demand following the stimulus measures announced by the central banks of the developed countries and the government of China. Added to this is the slight drop in oil production in the United States and the disruptions that occurred in some of the member countries of the Organization of Petroleum Exporting Countries (OPEC), which would be temporary. In addition, in April a possible agreement between several oil-exporting countries to freeze production at current levels was proposed (including Russia, Saudi Arabia, Venezuela and Qatar). Ultimately, no agreement was reached, given Iran's refusal to take part in the strategy, but the situation did push prices higher. However, it is worth noting that, despite the improvements in recent months, the price of oil remains below the average for 2015 as a whole.

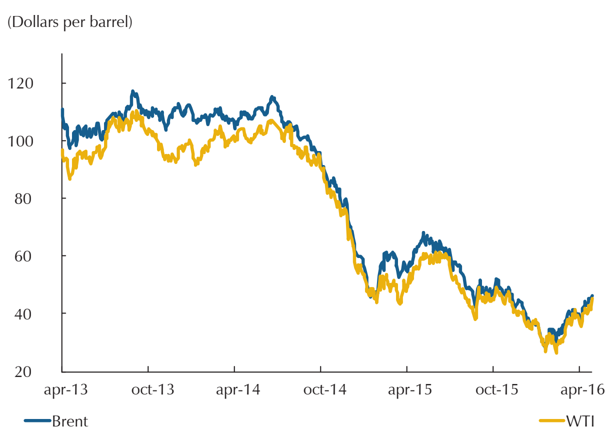
In the case of prices for nickel and other industrial-use metals that are exported by several of Colombia's trading partners, there also have been some increases since mid-February, after the plunge in January to a record low for the last five years. The rise was explained largely by the expectation that the monetary stimulus in China and in the major developed economies would help to curb the decline in global growth, thereby

Graph 9
Terms of Trade Index (Trade Method & PPI)



Source: Banco de la República.

Graph 10
International Oil Prices (Brent and WTI)

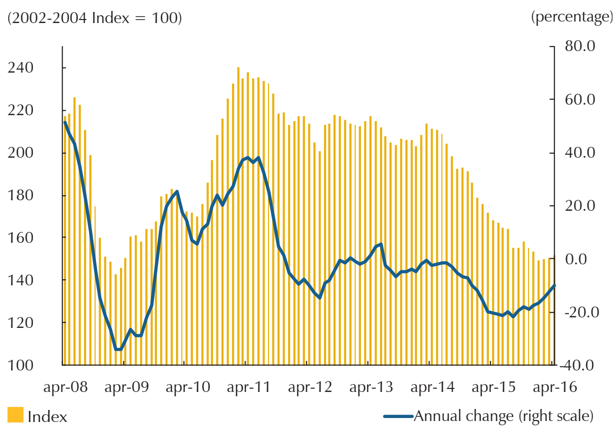


Source: Datastream.

supporting the demand for products of this type. Even so, prices for these commodities are low compared to what they were in recent years.

The international price of coffee also improved somewhat in the last two months, given the considerable likelihood that the global coffee supply is being affected by climate-shocks in several producing countries. Nevertheless, coffee prices have not reached high levels and are still below the average for the previous year.

Graph 11
International Food Prices



Source: United Nations Food and Agriculture Organization.

As for international food prices, the index of the Food and Agriculture Organization of the United Nations (FAO) continued to show significant annual declines in the first quarter, despite a slight rise in March and April (Graph 11). The minor increases observed during those months are primarily the result of a lower risk aversion in financial markets and a weaker dollar. Since Colombia is an importer of foodstuffs, the increases observed in recent weeks have slowed, to some extent, the improvements in terms of trade.

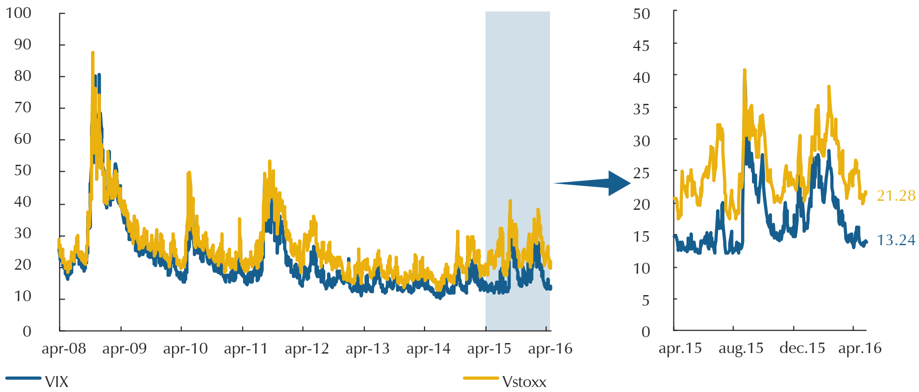
3. Financial Markets

The first quarter was characterized by abrupt changes in the financial indicators and in the exchange rates for the major currencies. There was a considerable increase in global risk aversion during the first part of this period. However, that trend reversed since mid-February, when the volatility indicators declined sharply before stabilizing at relatively low levels in March and April (Graph 12).

It is important to point out that there is a great deal of uncertainty about the reasons for this movement, since no major changes in economic and financial fundamentals are perceived to have occurred that would justify it. However, leading analysts suggest that turbulence earlier this year would have come partly from new fears about the global economic situation, especially that of China, given the outflow of capital from that country and the deterioration in its indicators of non-financial activity, particularly those related to the Chinese manufacturing sector. In addition, the sharp drop in commodity prices during this period sparked fears about the financial health of commodity-producing companies and countries, which were affected the most by the turbulence witnessed in the early months of year.

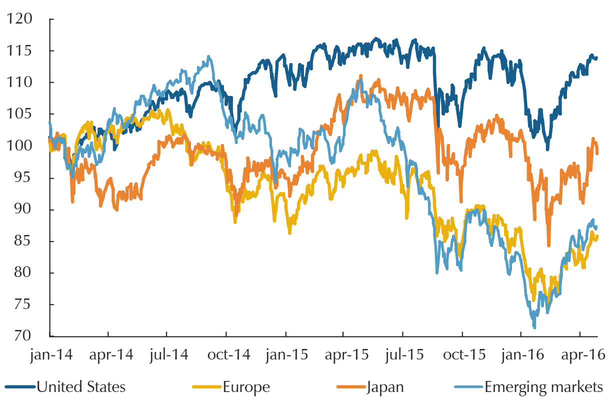
The decline in risk aversion observed since mid-February would be associated, in part, with the stimulus measures announced by the central banks of several developed economies and by the Chinese government, coupled with the prospect of a slower than expected return to normal for monetary

Graph 12
Financial Volatility Indexes



Source: Bloomberg.

Graph 13
Global Stock Indexes



Source: Bloomberg.

Graph 14
US Dollar Exchange Rate Index
(Trade-weighted average)

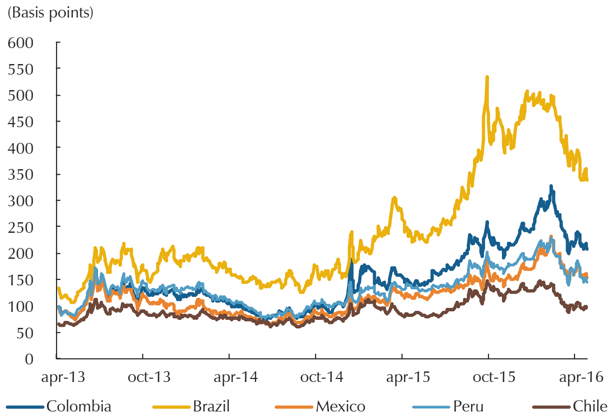
Source: Bloomberg.

policy in the United States. These circumstances helped calm fears about the risk of global economic activity unwinding sharply. Added to this is the fact that the recovery in prices for raw materials somewhat raised the income of commodity- producing countries and companies, reducing the perception of their financial risk.

Amidst this context, the major international stock indicators recovered at the end of the first quarter and in April from the low levels seen in early 2016 (Graph 13). In addition, the sharp dollar appreciation against most of the world's currencies between January and February was reversed in the last few months, although the dollar is still relatively strong compared to recent years values (Graph 14). Meanwhile, the rates on long-term sovereign bonds of the United States and those of the major countries in the euro area remained low.

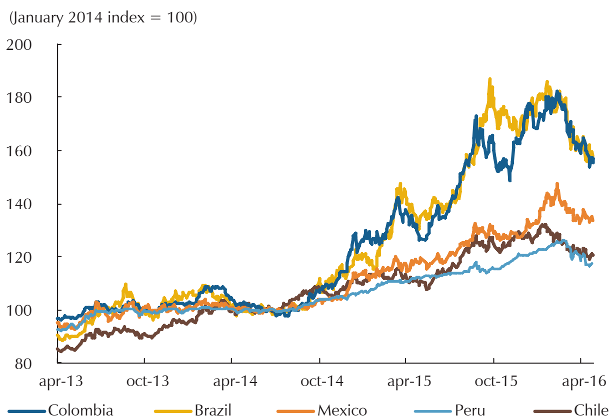
In Latin America, the reduction in global financial volatility observed since mid-February resulted in a drop in risk premia (Graph 15) and caused Latin American currencies to appreciate against the dollar (Graph 16). In Colombia, five-year credit default swaps (CDS) reached their peak value for the year on February 11, when they registered 326.4 bp, only to decline by more than 100 bp to 219.0 bp by the end of April. The Colombian peso appreciated 17.0% between its

Graph 15
Five-year Credit Default Swaps (CDS) for Several Latin American Countries



Source: Bloomberg.

Graph 16
Exchange Rate Indexes for Several Latin American Countries



Source: Bloomberg.

peak exchange rate for the year (COP 3,435 per dollar on February 12) and at the end of April (COP 2,945 per dollar, with data up to April 27).

4. Forecasts by the Technical Staff at Banco de la República

Colombia's trading partners growth forecasts for 2016 were revised downwards in this report, compared to the previous edition. This is due mainly to the expectation of less momentum in the commodity-exporting emerging markets, especially those in Latin America. Accordingly, economic expansion for the country's main trading partners (weighted by non-traditional trade) is expected to be 0.5% in 2016, which is lower than last quarter's forecast (1.3%) and than the figure observed in 2015 (1.1%) (Table 1). Although a recovery is expected for 2017 compared to this year, our trading partners would continue to experience very little growth versus what was observed in the last decade (Graph 17).

Most of this downward revision obeyed to the fact that Latin America's economic performance in 2016 would be weaker than anticipated in the previous editions of the Inflation Report, especially for Colombia's neighboring countries. Venezuela is a case in point; its forecast was revised from -5.0% to -7.0% as a result of the adverse impact of low oil prices on its fiscal and external accounts, coupled with evidence of continuing shortages of numerous consumer goods and raw materials, and problems with its supply of energy.

For Ecuador, the estimate for growth in 2016 as a whole was revised downward by two percentage points (pp) to -2.5%. This is the result of the fiscal consolidation needed for the country to adjust to the sharp shock to its terms of trade, to the increased difficulty in securing external financing after the drop in its foreign income, and to the fact that its exports are less competitive because of a strong dollar. Added to all these factors is the negative impact of the earthquake that hit the country in early April.

In Brazil, the contraction would be greater than anticipated in the previous edition of this report, due to the fiscal adjustment the country must make, the deterioration in employment and disposable household income, and the growing political uncertainty, with its adverse impact on business, investor

Table 1
Growth Forecasts for Colombia's Trading Partners

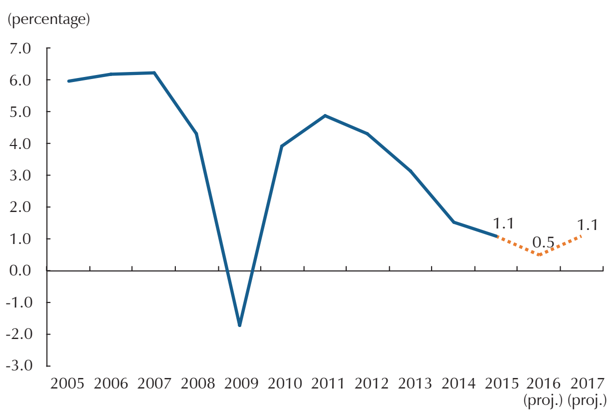
Growth forecasts for Colombia's trading partners	2015	Forecasts for 2016 Scenario			Forecasts for 2017 Scenario		
		Minimum forecast	Central forecast	Maximum forecast	Minimum forecast	Central forecast	Maximum forecast
Main partners							
United States	2.4	1.5	2.2	2.5	1.8	2.5	2.8
Euro Area	1.6	0.8	1.6	2.0	0.4	1.6	2.0
Venezuela	(5.7)	(10.0)	(7.0)	(4.0)	(7.0)	(4.0)	(1.0)
Ecuador	0.3	(5.0)	(2.5)	(0.5)	(4.0)	(2.0)	0.0
China	6.9	5.8	6.4	6.8	5.6	6.2	6.6
Other partners							
Brazil	(3.8)	(4.7)	(3.5)	(2.3)	(1.0)	0.7	2.0
Peru	3.3	2.5	3.5	4.0	3.0	4.0	5.0
Mexico	2.5	2.2	2.4	2.6	2.0	2.8	3.3
Chile	2.1	0.8	1.8	2.4	1.5	2.5	3.5
Total trading partners (non-traditional trade-weighted)	**1.1**	**(0.7)**	**0.5**	**1.4**	**(0.3)**	**1.1**	**2.1**
Developed countries[a/]	**1.9**		**1.9**			**2.0**	
Emerging and developing countries[a/]	**4.0**		**4.1**			**4.6**	
Total worldwide[a/]	**3.1**		**3.2**			**3.5**	

a/ IMF forecasts at April 2016
Source: International Monetary Fund (IMF) and calculations by Banco de la República

and consumer confidence. Consequently, the forecast for 2016 was reduced from -2.5% to -3.5%.

In Chile and Mexico, the low momentum compared to average growth on record for the last decade is expected to continue, as the economies of these countries adjust to the severe shock to their terms of trade and the decline in external demand. In Peru, some recovery is anticipated with respect to the figures on record for the last two years, thanks to more of a contribution from the mining and fishing sectors.

Graph 17
Average Growth of Colombia's Trading Partners (Non-traditional trade weighted)



(Proj.) Projected
International Monetary Fund (IMF); calculations and projections by Banco de la República.

Meanwhile, in the United States, the 2016 growth forecast was revised downward because household consumption during the first quarter was less dynamic than the leading market analysts' expectations and by the technical staff at Banco de la República. Even so, US households are expected to be the main driver of economic growth, since the fundamental factors in this type of spending are still at favorable levels. This also should give

This report assumes the Fed will raise its benchmark rate during the remainder of the year, but more gradually than was anticipated three months ago.

an additional boost to residential investment. These two items are expected to offset the weakness in net exports and non-residential investment, which would continue to be affected by weaker external demand, a stronger dollar, and global economic and financial uncertainty.

In this context, the US job market is expected to continue to recover, but more gradually than it has in the last few years, and the convergence of inflation to the target is expected to be slow. So, the Fed would continue raise its reference rate, but more gradually than anticipated in the December edition of the Inflation Report and according FOMC members' projections presented at their March meeting. This policy change is expected to pass-through to market rates in an orderly fashion.

Economic recovery in the euro area would continue slowly, as forecasted in the last edition of the Inflation Report. In a low inflation scenario and limited demand-side inflationary pressures, the ECB would maintain highly expansionary monetary policy. This will favor the recovery of confidence and restore the credit channel; it also should boost private consumption and investment. However, exports outside the European Union are expected to subtract from the region's growth, given the weakness in global demand.

China is expected to continue fostering an economy supported more by private consumption. Thus, there should be less of an increase in exports and investment during 2016 compared to the high rates of growth witnessed in previous years, while the rise in demand for commodities is expected to be more moderate. Even so, the stimulus measures adopted by the government of China and its central bank would favor a softer landing.

This central forecast continues to present significant downside risks. The main one comes from further deterioration in the Latin American economies or a sharper slowdown in China. In Latin America, this situation would be prompted by another drop in the region's terms of trade, by a larger than expected adverse effect on national income, or by an additional decline in confidence as a result of increased political uncertainty. In the case of China, this would occur if the monetary and fiscal measures adopted to stimulate growth are not effective, or because financial stability being compromised due to the high levels of borrowing and imbalances accumulated by the country's financial system in recent years.

The main risk to the central forecast comes from a more pronounced slowdown in the emerging economies.

In addition, the high indebtedness in some emerging countries, coupled with deterioration in their economic situation, higher foreign interest rates and the depreciation of their currencies, could undermine investor confidence, further reducing capital flows to these markets. This could lead to serious liquidity and solvency problems that eventually would negatively affect their growth.

As for risks in developed economies, uncertainty associated with political factors in the United States or in the euro area might increase, with potentially adverse effects on investment decisions. Nor can we rule out a disorderly reaction in the financial markets to normalization of monetary policy by the Fed, or that negative interest rates in the euro area might cause problems with financial stability that would disrupt the credit channel once again.

With regard to prices for Colombia's leading commodity exports, this edition of the Inflation Report contemplates levels below those observed in March, but similar to those observed on average for the first quarter (Table 2).

Table 2
Benchmark Price Forecasts for Colombia's Commodity Exports

Major products	2015	Forecasts for 2016			Forecasts for 2017		
		Scenario			Scenario		
		Minimum forecast	Central forecast	Maximum forecast	Minimum forecast	Central forecast	Maximum forecast
Colombian coffee (ex dock; dollars per pound)	1.51	1.30	1.50	1.70	1.30	1.60	1.90
Brent crude (dollars per barrel)	52.9	27.0	35.0	46.0	25.0	40.0	55.0
Coal (dollars per ton)	60.1	35	50	60	30	52	65
Nickel on the London exchange (dollars per ton)	11,877	7,364	8,908	10,392	7,364	10,392	13,362
Gold[a/] (dollars per troy ounce)	1,160	1,400	1,200	1,000	1,500	1,200	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)
Sources: Bloomberg; calculations by Banco de la República

In the particular case of oil, the average price for 2016 is expected to be around USD 35 per barrel. When this figure was defined, it was considered unlikely that the levels reached in recent weeks (USD 45 per barrel) could hold for the rest of the year. This because there is still evidence of a glut of crude on the world market, which would tend to push down the price in the coming quarters. On the one hand, the anticipated cutback in production from unconventional deposits in North America would occur more slowly than forecasted in previous edition of this report. In fact, some leading analysts believe prices at the current levels would allow those producers to continue to operate or to start operating wells that were not profitable at the prices prevalent earlier this year. Added to this is the fact that the OPEC members are expected to continue increasing their production. Iran is likely to attempt raising its production to what it was before the sanctions, and crude production that was interrupted temporarily in several OPEC countries in recent months is expected to start up again. An agreement to restrict production is considered unlikely. Also, inventories are historically high and there is little additional storage capacity, which would slow any attempt to restore balance to this market.

The current account deficit declined by USD 668 m in 2015, but increased from 5.2% to 6.5% as a percentage of GDP, due to the effect sharp depreciation had on GDP in dollars.

B. BALANCE OF PAYMENTS

1. Outcome in 2015

The current account in the country's balance of payments for 2015 showed a deficit of USD 18.925 b, which was USD 668 m less compared to the deficit the year before. As a portion of GDP, the deficit is 6.5%, which implies an additional 1.3 percentage points compared to the situation in 2014. This increase is explained by the reduction in current GDP in dollars, due to 37.2% average depreciation of the peso against the dollar between 2014 and 2015.

The external balance, in dollars, had a sizeable increase in the trade deficit in goods throughout the year (USD 9.396 b). This occurred in an environment where raw material prices continued to drop, thereby affecting demand from some of Colombia's major trading partners. Total exports in dollars were down 33.0% annually during 2015, while total imports in dollars declined by 15.3%. Although the balance of services continued to show a deficit (-USD 3.981 b), it was USD 2.701 b less than the year before. Service exports amounted to USD 7.265 b, with 5.7% annual growth, driven especially by more revenue from travel. It is important to point out that current revenue from services is concentrated in the item comprised of travel and transportation, which accounts for about 80.0% of these exports. Moreover, service imports during the same period registered an annual decline of 17.0% (USD 2.312 b), mainly due to fewer expenditures for business services, transport, insurance and travel.

The factor income balance also showed a deficit in 2015 (-USD 5.989 b), but it was USD 6.650 b less (-52.6%) than the year before. This was mainly the result of an annual decline in expenses, given the reductions in foreign remittances of profits earned by companies with foreign direct investment (FDI) in the mining and non-tradable sectors. In the case of the latter, this was due partly to depreciation. On the other hand, net income from current transfers increased by USD 713 m compared to the year before.

The external balance in 2015 was characterized by an important increase in the trade deficit, which was offset by reductions in net outlays for services and factor income.

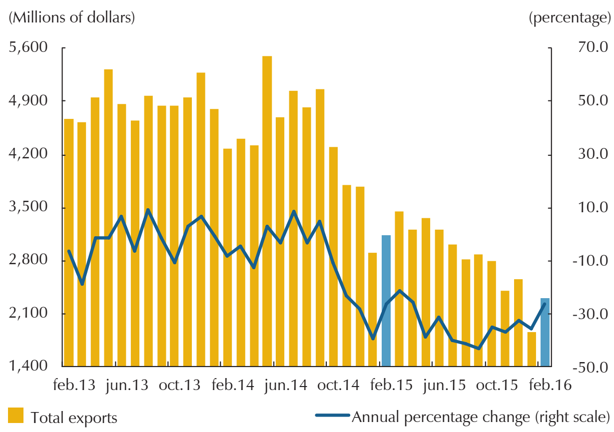
Net inflows of capital in 2015 came to USD 19.617 b, which is USD 4.656 b less than the year before, when they amounted to USD 24.273 b. This was associated, in particular, with reduced flows of net direct investment (USD 4.536 b), given significantly less investment in mining and industry (with an annual decline of 43.0%) and in the transport sector and communications. However, mining-energy activity continued to be the primary recipient of FDI, receiving 30.0% of the total inflow in 2015, followed by manufacturing (20.0%), financial and business services (17.0%), trade and hotels (15.0%), and other sectors (18.0%).

Additionally, 2015 saw fewer resources from portfolio investment flows (-USD 1.968 m) compared to the year before, when a restructuring of public debt ratios in the JP Morgan Emerging Markets Bond Index favored Colombian securities. This was offset chiefly by added revenue from other investments (loans and deposits), with USD 3.567 b in net flows or USD 3.105 b more than in 2014. Finally, in terms of financial derivatives for currency forwards and options, there were USD 1.526 b in net outflows, while variations in the international reserves of Banco de la República came to USD 415 m.

2. Forecasts

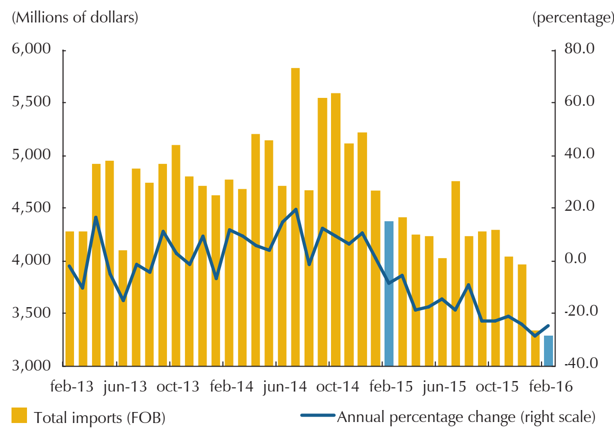
The trade balance for goods in the first quarter of 2016 is expected to show a lower deficit than in the first quarter of 2015, since foreign purchases in dollars are expected to contract sharply. This should more than offset the downturn observed in foreign sales as a result of the drop in oil prices during the early months of the year. Available information on foreign trade in goods during January-February seems to confirm this projection. In that period, total exports in dollars fell by USD 1.880 b (31.1%) compared to the previous year (Graph 18), affected by lower international commodity prices and by a reduction in the export value of industrial goods. On the other hand, imports FOB (free on board),[3] in dollars, were down by USD 2.414 b (26.7% in annual terms) (Graph 19) (see the shaded section on pg. 28).

Graph 18
Total Exports
(Monthly)



Sources: DANE; calculations by Banco de la República

Graph 19
Total Imports (FOB)
(Monthly)



Sources: DANE; calculations by Banco de la República

3 Unlike the balance-of-payments measurement, which takes into account imports FOB (free on board), GDP calculated according to the national accounts considers imports CIF, which include freight and insurance. The average total value of the latter, in dollars, came to US 3.492 b in January and February 2016, which amounts to an annual reduction of 26.3%.

EXPORTS AND IMPORTS IN DOLLARS SO FAR DURING THE FIRST QUARTER OF 2016

Total exports fell 31.1% during the two-month period from January to February 2016 compared to the previous year, given fewer foreign sales in all product groups. One of the predominant factors during this period was the significant decline in mining exports (-42.8%). The sharpest reductions in this group were in crude oil (-54.4%) and refined petroleum products (-14.8%), largely due to the drop in oil prices (which contracted 38.3% annually during this period).

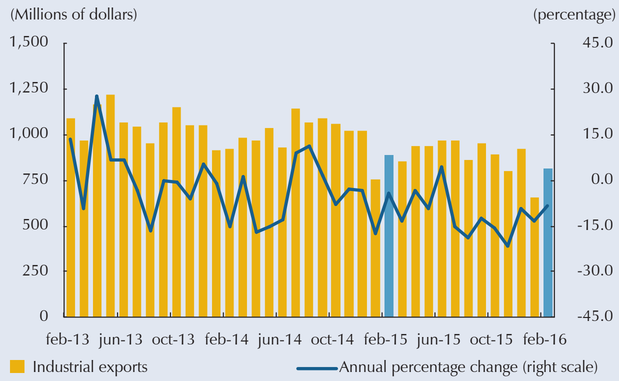
Industrial exports[1] during the same months were down 10.7% annually (Graph A), affected mainly by fewer exports of chemicals, vehicles and leather. The most affected destination was Ecuador, which saw an annual drop of 38.1% in industrial exports during these two months, while sales to Asia and Venezuela declined by 5.4% and 0.4%, respectively (Graph B). In contrast, sales to the European Union and the United States rose 21.4% and 12.1%, respectively.

Agricultural exports were down 23.2% annually during this period, with declines in sales of coffee, bananas and flowers (36.1%, 11.3% and 0.8%, respectively).

As for imports, the FOB value in dollars dropped 26.7% annually during these two months, given the reduced foreign purchases in all product groups. Foreign purchases of consumer goods fell 19.1% annually due to contractions in durable goods (28.3%) and non-durables (11.5%). Imports of durable goods were influenced the most by fewer imports of vehicles (-27.3%) and appliances for domestic use (-38.1%), while non-durables were affected largely by fewer imports of food products (-9.8%) and pharmaceutical products and toiletries (-12.8%). Imports of intermediate goods were down 14.7%, mainly because of the decline in imports of raw materials for industry (-16.7%). Purchases of capital goods were down by 42.1%, given the drop in imports of transport equipment (-66.9%), capital goods for industry (-24.7%) and agriculture (-25.0%), and building materials (-16.0%). (Graph C).

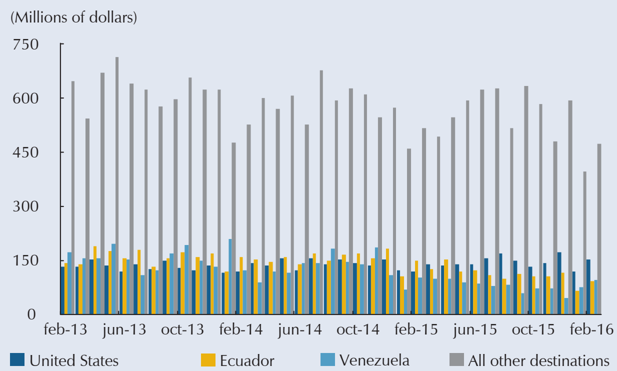
1 These exports do not include oil or derivatives thereof, coal, ferronickel, gold, coffee, bananas or flowers, and they represent 35.4% of total exports during the period in question. Exports from the industrial manufacturing sector accounted for 94.7% of this group.

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



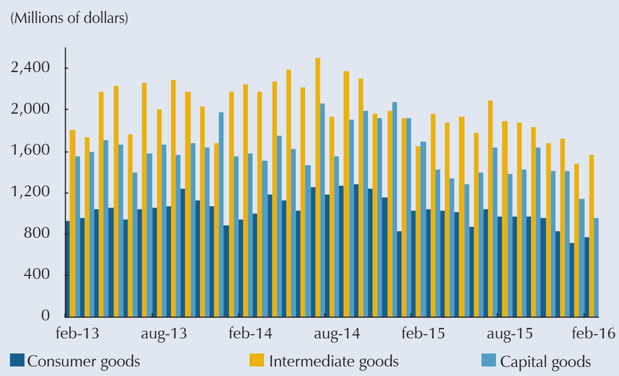
a/ Excluding oil and derivatives thereof, coal, ferronickel, gold, coffee, bananas and flowers. Includes other mining and agricultural exports.
Source: DANE; calculations by Banco de la República

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



a/ Does not take into account coffee, petroleum derivatives, ferronickel, gold, bananas or flowers.
Source: DANE; calculations by Banco de la República

Graph C
Imports by Type of Goods (FOB)



Sources: DANE; calculations by Banco de la República

Further reductions in the current account deficit during the first quarter of 2016 are expected, particularly because of the plunge in imports observed so far this year.

It is estimated that the reduction in the trade deficit during the first quarter would be accompanied by a lower deficit in the balance of services. This would be due to the positive effects of the exchange rate on these exports and the decline in imports linked to freight and tourism services.

The factor income balance also is expected to continue to adjust during the first three months of the year. Specifically, a further reduction in net outflows of factor income is anticipated, primarily as a result of lower profits in the mining sector, which continues to be undermined by low prices for oil and raw materials. Reduced net outflows are expected for factor income in other sectors as well, given the impact of depreciation on earnings measured in dollars. In addition, net income from transfers would be higher than during the same period last year. This is consistent with a rise in workers' remittances, which were up by an annual rate of 12.6% in March.

In terms of financing, FDI flows to the mining-energy sector during the first quarter of 2016 would be lower than those observed in the same period last year, and would continue to decline relative to the final quarters of 2015, given the price outlook for this sector. More resources for the other branches are expected in the first quarter compared to the previous year, thanks to revenue from the sale of ISAGEN.

The available figures from the exchange balance on capital flows so far this year[4] suggest a slowdown in foreign exchange balance entering the local market, compared to the flows recorded a year ago. This situation has been offset partly by more resources from foreign loans obtained by the non-financial public sector.

As in the previous edition of this report, alternative forecasts for the 2016 balance of payments varying on the terms and availability of external financing for the local economy were considered. Given their uncertainty, these elements determine the extent of the forecast range for the current account deficit. These scenarios are built on the central assumptions for the external environment that were outlined in the previous section and with different estimates on the financial account and domestic growth.

A current account deficit equal to -5.9% of GDP is the most likely scenario for 2016. This implies a reduction to levels at around USD 16 b.

Accordingly, the current account deficit for all of 2016 is estimated at 5.9% of GDP in the most likely baseline scenario (Table 3). Likewise, taking into account the maximum and minimum scenarios expected for

4 Although the capital flows registered in the foreign exchange balance do not coincide exactly with what is entered in the balance of payments, since they refer to the inflow and outflow of foreign exchange, they do offer some idea of the trend.

Table 3
Balance of Payments
Annual Flows (Millions of US dollars)

	2012	2013	2014 (pr.)	2015 (pr.)	2016 (proj.)
Current account (A+B+C)	**(11,132)**	**(12,326)**	**(19,593)**	**(18,925)**	**(15,948)**
Percentage of GDP	**(3.0)**	**(3.2)**	**(5.2)**	**(6.5)**	**(5.9)**
A. Goods and services	(861)	(2,762)	(11,313)	(18,007)	(15,984)
B. Primary income (factor income)	(14,851)	(14,157)	(12,638)	(5,989)	(5,084)
C. Secondary income (current transfers)	4,579	4,594	4,358	5,071	5,119
Financial account (A+B+C+D)	**(11,754)**	**(11,845)**	**(19,836)**	**(19,201)**	**(15,948)**
Percentage of GDP	**(3.2)**	**(3.1)**	**(5.2)**	**(6.6)**	**(5.9)**
A. Direct investment (ii-i)	(15,646)	(8,557)	(12,426)	(7,890)	(10,659)
i. Foreign investment in Colombia (FDI)	15,039	16,209	16,325	12,108	13,659
ii. Colombian investment abroad	(606)	7,652	3,899	4,218	3,000
B. Portfolio investment	(5,690)	(6,978)	(11,654)	(9,686)	(1,534)
C. Other investment (loans, other types of credit and derivatives)	4,176	(3,257)	(193)	(2,041)	(4,328)
D. Reserve assets	5,406	6,946	4,437	415	573
Errors and omissions (E & O)	(622)	480	(243)	(276)	0

(pr.) preliminary; (proj.): projected
Observation: The results presented in this table follow the recommendations outlined in the sixth edition of the Balance of Payments Manual proposed by the IMF. For additional information and changes in methodology, see http://www.banrep.gov.co/balanza-pagos
Source: Banco de la República

the external variables (see Section A of this chapter), the deficit is expected to be somewhere between -5.3% to -6.4% of GDP. In the case of the central scenario, the previous figure implies a reduction in the deficit towards levels near USD 16.000 b. The projected balance of payments for 2016 is consistent with a scenario of less growth in domestic demand and a larger contribution to GDP from net exports. In this sense, the central scenario assumes there will be an adjustment in the trade deficit during the year, given the expected reduction in imports, a lower deficit in the services balance and factor income, and an additional contribution from current transfers, given the increase in worker remittances observed in recent months.

Foreign sales performance in 2016 will be affected by the lower forecast for the prices of all major export products. This is offset only in part by the recovery in oil exports, now that Reficar will be operating at full capacity by mid-year. As mentioned in the previous section, in the case of oil, the average price for reference Brent is estimated at USD 35 per barrel. A reduction of approximately 5.0% is forecasted for all other exports, mainly due to the slowdown in growth experienced by the country's trading partners, mainly Venezuela and Ecuador.[5] As a result, in the central

5 It should be noted that the annual changes in export volumes for commodities are estimated in line with the forecasts for growth in their production (oil -8.0%, coal -1.0%, ferronickel 5.0% and coffee 0%).

Capital flows are expected to be less in 2016 than in 2015. This is particularly the result of a cutback in resources allocated for portfolio investment.

scenario, exports of major products would decline in dollars by about 29.0%, while the drop in total exports would come to 19.1%.

On the other hand, imports in dollars would shrink by around 15.0% annually, as opposed to what was observed in 2015. This performance would be associated with several factors; namely, 1) a sizeable reduction in foreign purchases of consumer durables and capital goods, due to the less momentum in domestic demand (see chapters II and IV in this report); 2) the substitution of fuel imports when Reficar begins operating, and 3) additional price reductions on imported items, especially intermediate goods.

As for trade in services, a decline in the deficit is forecasted for 2016, above and beyond what was observed in 2015, thanks to the effects of depreciation on the net balance of certain services, such as business services and tourism, and the anticipated reduction in prices for imported services, such as freight (consistent with the projection on how trade will perform). Net factor income outflows are expected to decline as well, due to fewer profits remitted from the mining-energy sector and the others, as was the case in the first quarter.

In terms of financing the deficit, capital flows in 2016 are expected to be less, as a whole, than those registered in 2015. Foreign portfolio investment, in particular, is forecasted to decline, given the improvement in economic conditions for the advanced economies compared to the emerging markets, and the continued normalization of monetary policy in the United States. Specifically, bonds placed on the international market by both the public and private sectors are expected to generate fewer resources, as is also the case with flows of foreign portfolio investment to the local market (government debt and equity). This situation would be offset partially by added net inflows of direct investment and resources from foreign borrowing.

Net direct investment is expected to outpace that of last year. This would be the result of increased flows to sectors other than mining and energy, thanks to the momentum anticipated in the building of infrastructure and resources from the sale of Isagén. In addition, Colombian investment abroad is expected to be less than it was in 2015. This would compensate for the expected reduction in FDI resources for the oil and mining sectors, due to the low prices forecasted for those commodities.

Net direct investment in 2016 is expected to be higher than a year ago, thanks to the influx of proceeds from the sale of ISAGEN and less Colombian investment abroad.

More resources from foreign loans would be explained by the increase in the national government's debt with multilateral banks and by other loans contracted by the rest of the non-financial public sector. The so-called fourth generation infrastructure projects (4G) also will require some resources from additional foreign borrowing.

The forecast range for the current account deficit in 2016 is determined by the uncertainty surrounding the terms and availability of financing, as well as the sensitivity of some capital flows to the mining-energy sector prospects and economic activity in general.

Box 1
DEVELOPMENTS IN COLOMBIA'S BALANCE OF NON-FACTOR SERVICES

Celina Gaitán Maldonado
and Rocío Mora Quiñones*

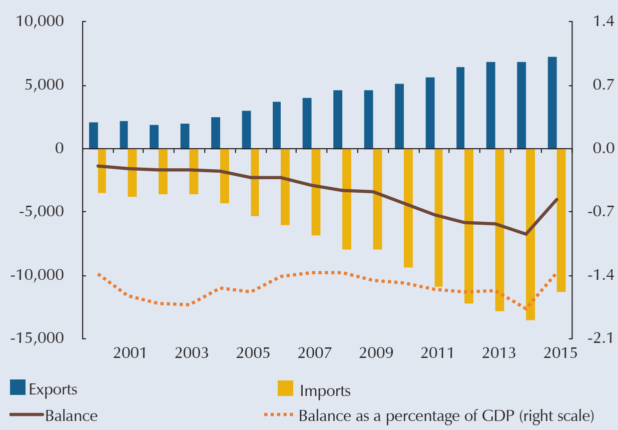
The external balance of non-factor services is a component of the balance of payments that does not receive a great deal of attention from market analysts. However, developments in the accounts that make up this balance, and the relative importance they have gained in recent years when it comes to prospects for adjusting the external imbalance in the Colombian economy, justify analyzing them in more detail.

The balance of services records the difference between what the Colombian economy earns and spends on this item with the rest of the world. Twelve cross-border activities are classified in this category. They include the services provided through different means of transport (air, maritime and others) in conjunction with foreign trade (freight) and travel services (passengers); transactions derived from the provision of travel services, such as accommodation, food and recreation, among others; business services (technical assistance, administrative services, customer service, etc.); and financial services, insurance and pensions, among others.[1]

1. 2000-2014 Period

During the last decade, Colombia registered a growing deficit in dollars in its balance of non-factor services (Graph B1.1). In 2004, this deficit came to USD 1,.798 b as a result of USD 2.453 b in revenue from exports of services and USD 4.251 b in expenditure on imported services. A decade later, by the end of 2014, the deficit in the balance of services had increased to USD 6.682 b, when revenue came to USD 6.876 b as opposed to USD 13.558 b in expenditure. In both cases, these amounts were triple what they had been a decade earlier. During this same period, the balance of services as a portion of GDP did not change substantially and fluctuated at around 1.5%.

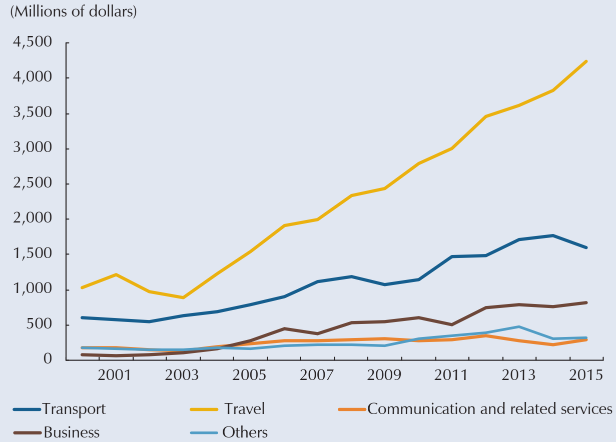
Graph B1.1
Annual Balance of Non-factor Services (2000-2015)



Source: Banco de la República.

The way trade in services performed during the last decade is explained by several phenomena, which are described in this section. As for income, the largest increases were in the area of travel services. This item includes sales of tourist and business services in Colombia to non-residents (other than tickets for transportation) (Graph B1.2). The value of these exports averaged around USD 1 b in the early years of the previous decade, reaching USD 3.825 b by the end of 2014. This amounts to more than 12.0%

Graph B1.2
Annual Exports by Type of Services (2000-2015)



Source: Banco de la República.

* Ms. Gaitán is a specialized professional with the Programming and Inflation Department and Ms. Mora is an expert professional with the Technical and Economic Data Department at Banco de la República. Their opinions, as expressed in this article, imply no commitment on the part of Banco de la República or its Board of Directors.

1 See "Balanza de pagos de Colombia. Metodología y fuentes de información". Available in www.banrep.gov.co/economia/pli/Metodologia_Balanza_Pagos.pdf

average annual growth during the last decade. A portion of this performance is explained by aspects such as the significant improvement in the perception of security in Colombia during that period, which stimulated a larger influx of tourists, business people and investors, and the migratory wave of the late nineties, which led a significant number of Colombians to settle abroad and then visit the country as non-residents.

Another highlight is the evolution of revenue from transport services and other business services. The respective average annual increases in these services during the last decade came to 10.4% and 19.8% at the close of 2014. In the case of transport, this development is linked closely to the performance of travel services (as described above), which bolstered revenue from air transport passenger services. At the same time, business services were propelled, in part, by the increase in demand for consulting services (mainly tax and legal) on the part of non-resident users who were attracted by business opportunities in the country.

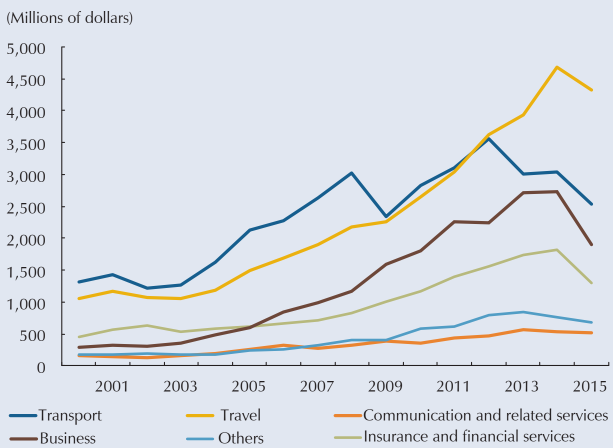
In the group of imports, the most significant increases were also in foreign purchases of travel services, transportation and business services (Graph B1.3). In the first case, the outlays for these services went from slightly over USD 1 b in 2004 to USD 4.678 b at the end of 2014. This rise was associated mainly with the effect of appreciation on the peso value of tourist packages purchased by Colombians abroad. In other words, the wealth effect that caused Colombian income to appreciate in dollars (32.7% cumulative appreciation between 2004 and 2014) made foreign destinations more attractive and boosted these imports as a result. Added to this was the expansionary phase of the economic cycle (4.8% average annual growth between 2004 and 2014); coupled with the effect of appreciation, it stimulated Colombian purchases of tourism services and business travel abroad.

Transport services were bolstered not only by the performance of foreign trade in the last decade, which raised the demand for freight services, but also by the increase in purchases of air passenger transport services associated with the travel services phenomenon mentioned earlier. The rising cost of transport services was another element, linked closely to the price of oil, which meant the value of these services rose during the boom in oil prices. All these factors combined led to 7.6 % annual average growth in transport services between 2005 and 2014 (Graph B1.4).

In the case of business services, foreign purchases increased at an average annual rate of 19.6% during the period in question, going from nearly USD 600 m in 2005 to USD 2.725 b by the end of 2014. This performance was associated with the rise in demand for imported technical services to develop oil and mining activities, amidst the mining-energy boom in the Colombian economy during that time. The demand for management consulting services increased as well (accounting, tax and legal services, mainly) and stemmed from companies with foreign direct investment (FDI) that have come to Colombia. Colombian branches of an important number of companies belonging to major multinational groups carry out consulting contracts they establish with their parent companies abroad, generating an outflow for such services in Colombia.

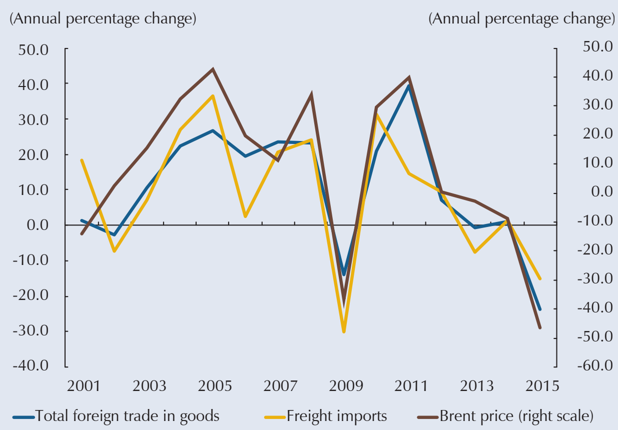
The other factors that boosted imported services in the last decade deal with rising expenses for the use of intellectual and industrial property, and royalties for the use of brands. This expansion is associated with the rise in FDI registered during the period, as well as the increase foreign payments for insurance, specifically in

Graph B1.3
Annual Imports by Type of Services (2000-2015)



Source: Banco de la República.

Graph B1.4
Freight Imports, Foreign Trade and Oil Prices



Source: Bloomberg, DANE and Banco de la República terms of reinsurance for the large investments made in Colombia during the economic boom.

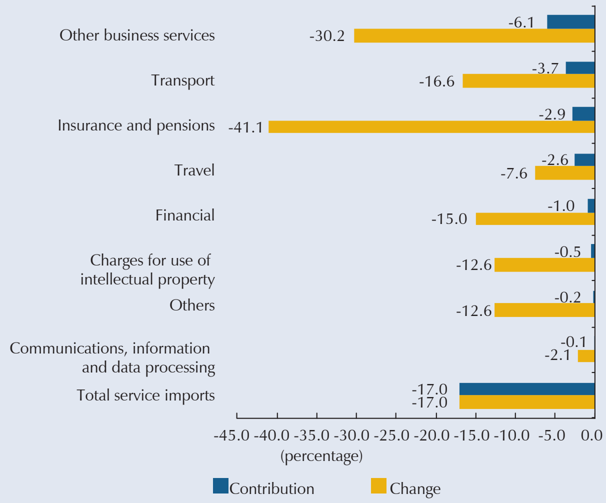
2. The Outcome in 2015 and Forecasts for 2016

Most of the factors that explain the evolution in the country's external balance of services during the last decade have reversed as of late 2014, thereby changing the trend in the services deficit observed since 2004. The sharp drop in prices for oil and other commodities, as of mid-2014, and the impact this had on variables such as the exchange rate, foreign trade, economic growth and investment, had an important effect, mainly on imported services and, to a lesser extent, on exports. As a result, the deficit in the balance of services fell by USD 2.701 b between 2014 and 2015. This is explained by 5.7% annual growth of exports (USD 390 m) and, above all, by an annual contraction of 17.0% in imports (USD 2.312 b).

Given their share, the services that contributed the most to the drop in imports were those related to business (-30.2%), transport (-16.6%) and travel (-7.6%) (Graph B1.5). On the export side (Graph B1.6), the major contribution came from foreign sales of travel services (11.0% annually). Exports of other services, such as those associated with business and communications, also grew during 2015, but made an smaller contribution. Given the 33.0% annual decline in exports of goods over the last year and the growth in exports of services, the latter increased from less than 11.0% of total exports in 2014 to 16.0% by the end of 2015, raising the relative importance of this source of foreign exchange for the country.

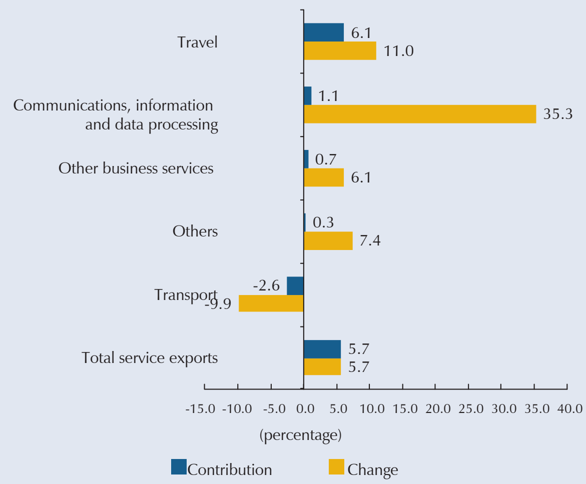
In the central scenario for the balance of payments outlined in Chapter I of this report, the deficit is expected to continue to decline during 2016 and possibly in the years thereafter. This would be due to the delayed effect depreciation can have on decisions regarding consumption, particularly those related to tourism services. Also, the improvements in Colombia's external competitiveness, due to the adjustment in relative prices, build interest in investment in sectors with good potential for being service exporters, which means an increase in revenue associated with these sectors. This is particularly relevant, not only in activities related to tourism, but also in those associated with other business services, such as health and customer service platforms.

Graph B1.5
Performance of Service Imports in 2015



Source: Banco de la República.

Graph B1.6
Performance of Service Exports in 2015



Source: Banco de la República.

II. Domestic growth: the current situation and short-term outlook

Annual GDP growth during the fourth quarter was 3.3%, which was at the top of the forecast range outlined in the previous edition of the Inflation Report. Accordingly, the increase for the entire year came to 3.1%.

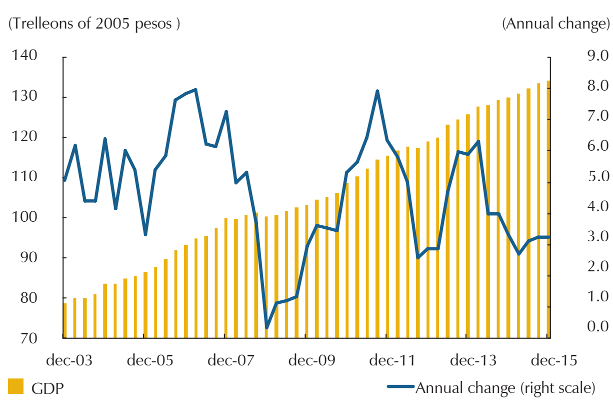
There were no major changes in GDP growth throughout the year. However, domestic demand slowed gradually, suggesting the economy continued to adjust in an orderly manner.

During the first three months of 2016, the Colombian economy would have expanded at a slower pace than in the fourth quarter of 2015. The timing of the Easter holiday partly explains this performance, but its effect likely will be reversed in the following quarter.

A. GDP DURING THE FOURTH QUARTER AND ALL OF 2015

According to the latest national account figures published by the National Bureau of Statistics (DANE), the Colombian economy grew 3.3% during the fourth quarter of 2015 (Graph 20), a similar pace to that of for the third quarter. This figure was at the top of the forecast range outlined by the technical staff at Banco de la República in the previous edition of the Inflation Report (between 2.6% and 3.6%, with 3.1% being the midpoint). As such, growth during the entire year came to 3.1%, as opposed to 2.0% in 2014. This is 10 basis points (bps) above the figure of 1.0% estimated by the technical staff one quarter earlier (between 2.8% and 3.2%, with 3.0% being the most likely figure). It is important to point out that the GDP growth figures for 2014 were revised downwards, from 4.6% to 4.4%.

Graph 20
Gross Domestic Product
(Seasonally adjusted)



Sources: DANE; calculations by Banco de la República

The momentum in GDP was relatively uniform during 2015, with growth at around 3.0% each quarter. However, domestic demand did show signs of slowing throughout the year, thus continuing with the orderly adjustment of the economy that has been observed since mid-2014. This reflects lower terms of trade, as well as the impact the general increase in prices in the economy and nominal depreciation of the peso against the dollar have had on the spending capacity of households and businesses. The slowdown in the Colombian economy also occurred in a context of less growth for our major trading partners.

The slackening in domestic demand was mainly the result of lower growth in investment, which is the item that registered the largest adjustments in 2015. One aspect of this aggregate that stands out is the drop in the tradable component of gross capital formation, particularly investment in machinery for industry and transport equipment. The setback in these two items concentrated during the second half of the year. The non-tradable component (construction of buildings and civil works) also slowed, but continued to contribute positively to GDP growth (Table 4).

Both components of consumption (private and public) also slowed with respect to 2014, though less than investment. As part of private

Table 4
Real Annual GDP Growth, by Type of Expenditure

	2014	2015				2015
	Full year	I Qtr.	II Qtr.	III Qtr.	IV Qtr.	Full year
Total consumption	**4.3**	**4.1**	**3.7**	**4.4**	**3.6**	**3.9**
Household consumption	4.2	4.4	3.8	4.3	3.0	3.8
Non-durable goods	3.2	4.4	4.1	4.6	3.4	4.1
Semi-durable goods	3.1	5.7	2.8	5.6	4.5	4.6
Durable goods	13.5	5.1	1.4	(4.8)	(8.4)	(2.0)
Services	4.7	4.4	4.2	4.5	3.7	4.2
End government consumption	4.7	1.9	2.2	3.3	4.0	2.8
Gross capital formation	**11.6**	**6.5**	**0.8**	**3.4**	**0.2**	**2.6**
Gross fixed capital formation	9.8	7.3	3.6	0.5	(0.0)	2.8
Agriculture, forestry, hunting and fishing	1.5	(5.4)	(3.0)	0.2	2.7	(1.5)
Machinery and equipment	7.1	0.6	(2.0)	(0.3)	(5.3)	(1.8)
Transport equipment	10.0	41.3	6.0	3.1	(5.1)	9.4
Construction and buildings	7.7	2.3	10.1	(8.2)	8.0	2.7
Civil works	14.0	3.7	7.2	7.6	2.5	5.2
Services	11.0	1.9	4.6	(3.3)	0.7	0.9
Domestic demand	**6.0**	**4.4**	**3.1**	**4.2**	**2.6**	**3.6**
Total exports	**(1.3)**	**4.1**	**(0.2)**	**(5.2)**	**(1.0)**	**(0.7)**
Total imports	**7.8**	**12.3**	**(0.7)**	**7.4**	**(2.9)**	**3.9**
GDP	**4.4**	**2.7**	**3.1**	**3.2**	**3.3**	**3.1**

Sources: DANE; calculations by Banco de la República

Private and public consumption slowed throughout 2015 with respect to what was observed in 2014, although less so than investment.

consumption, expenditure on durables registered the most adjustments. This has been the result largely of the effect of accumulated depreciation in the nominal exchange rate and its pass-through to prices for durable goods. The other components of private consumption performed well, although with some deceleration in the final quarter of the year.

Net external demand (exports minus imports) contributed negatively to GDP growth in 2015. Exports were down slightly in the aggregate for the year, due to reduced foreign sales of mining products. This momentum worsened towards the final quarter of 2015. Added to this is the mediocre performance of non-traditional exports, which seem to have been affected by low external demand linked to the tough times for our major trading partners, and the limited response from export industries to accumulated depreciation of the exchange rate. It is possible that weak external demand, coupled with the higher cost of imported raw materials (due to peso depreciation), has prevented companies from taking advantage of the gains in competitiveness derived from a more favorable exchange rate.

Imports also slowed in 2015, registering less growth than in 2014 and at a more sluggish pace than was predicted in earlier versions of this report. The momentum in this item throughout the year was consistent with that observed for the GDP components on the expenditure side, with imported goods accounting for the largest share; that is, durable consumption and investment in capital goods for industry and in transportation equipment. On the supply side, the most dynamic branches during the year as a whole were construction, retail sales and financial services, while growth in the manufacturing industry and mining was below the averages on record since 2000 (2.8% and 3.8%, respectively) (Table 5). Nevertheless, the second half of the year saw a shift in favor of tradable production (e.g., industry and agriculture) that is consistent with what was expected following the sharp depreciation of the peso against the dollar.

The most dynamic branches of the economy in 2015 were construction, retail and financial services, while growth in the manufacturing industry and mining was below the averages registered since 2000.

The momentum in the construction sector (3.9%) is explained by good performance for civil works (5.4%), although the growth in building construction during the year as a whole was limited (2.1%). This reflects the decline in non-residential building construction during the second half of the year. As for civil works, it worth noting that road construction and other engineering works were the component that fueled the momentum in the sector. Payments made by local governments explain much of this subsector's contribution to growth of the Colombian economy.

Retail grew more than the economy as a whole. However, sales slowed sharply towards the end of the year, particularly vehicle sales, which were down 13.0% in 2015. In contrast, tourism seems to have been favored by peso depreciation: GDP for hotels and restaurants accelerated compared to 2014 and expanded by 5.5%. This was consistent with the

Table 5
Real Annual GDP Growth, by Branch of Economic

Sector	2014	2015				2015
	Full year	I Qtr.	II Qtr.	III Qtr.	IV Qtr.	Full Qtr
Agriculture, forestry, hunting and fishing	3.1	1.8	2.5	4.3	4.8	3.3
Mining and quarrying	(1.1)	0.2	4.2	(0.3)	(1.4)	0.6
Manufacturing industry	0.7	(1.8)	(0.2)	3.2	4.0	1.2
Electricity, gas and water	3.4	2.2	1.5	4.0	4.0	2.9
Construction	10.5	3.1	8.2	0.4	4.3	3.9
Buildings	8.1	2.1	8.9	(8.2)	6.8	2.1
Civil works	13.4	3.6	7.4	7.7	2.9	5.4
Retail, repairs, restaurants and hotels	5.1	4.9	3.6	4.6	3.6	4.1
Transport, storage and communication	4.7	2.8	0.4	2.0	0.5	1.4
Financial, real estate and corporate services	5.7	4.9	3.8	4.2	4.2	4.3
Social, community and personal services	5.2	2.7	2.5	3.2	3.4	2.9
Subtotal –aggregate value	4.3	2.6	3.0	3.0	3.2	3.0
Taxes minus subsidies	5.6	4.1	4.0	4.5	3.5	4.0
GDP	4.4	2.7	3.1	3.2	3.3	3.1

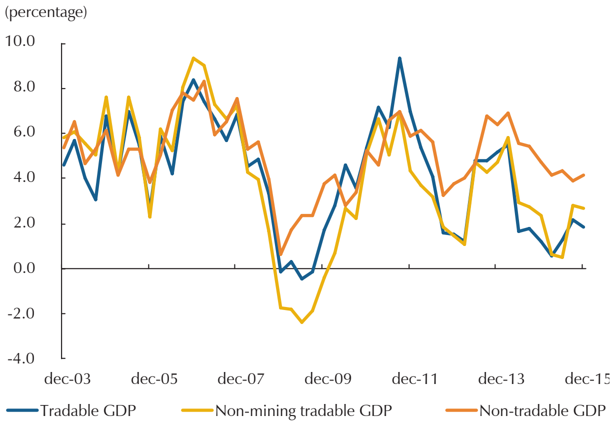
Sources: DANE; calculations by Banco de la República

hotel occupancy rate, which surpassed 62% during the year-end season, according to information from the Hotel and Tourism Association of Colombia (Cotelco). The Civil Aeronautics Board (Aerocivil) reported an increase of 10.1% in the number of passengers for domestic travel and 10.7% for international flights. In addition, information from the Ministry of Commerce, Industry and Tourism shows travel by land was up as well. During December 2015, 4,414,285 vehicles passed through the country's highway toll gates. This represents an annual increase of 8.8%.

GDP for financial, real estate and business services continued to rise at a relatively high rate (4.3% during the year). Given its share of GDP (19.6%), this sector remained one of those that contributed the most to economic growth, as it has for several years.

The mining and manufacturing sectors have faced several negative supply shocks so far this year. In mining, oil facilities were threatened by problems with law an order, and there were difficulties in transporting coal and oil output, all of which affected the sector's performance. Production was up 1.5% during the year in the case of oil and down 3.5% for coal. Closure of the Reficar Refinery during much of the year led to a significant downturn in the production of petroleum products; their share of manufacturing GDP had been close to 12%. Excluding oil refining, industry rose 1.6% during the year and accelerated in the second half, with around 3.1% annual growth versus 0% in the first six months.

Graph 21
GDP in the Tradable, Non-mining Tradable and Non-tradable Sectors
(Annual growth)



Sources: DANE; calculations by Banco de la República

In that environment, tradable GDP accelerated from 0.9% to 2.0% between the first half of the year and the second, while the annual increase in non-tradable GDP remained at 4%. During the fourth quarter, tradable GDP was up by 1.9%. Excluding mining, GDP in the other tradable sectors grew 2.7%. It is noteworthy that these growth figures for tradable and non-mining tradable GDP are well below their historical averages (3.7% and 3.8%, in that order) (Graph 21).

B. GDP IN THE FIRST QUARTER OF 2016

The available indicators on performance of the economy in the first quarter of 2016 suggest GDP would have increased at a slower pace during this period than in the final quarter of 2015. At the beginning of the year, the Colombian economy continued to adjust slowly to the new realities regarding the exchange rate and terms of trade. The forecasts outlined in this report point to domestic demand that would be affected by less investment in capital goods, while consumption would have continued to slow in an orderly fashion. A look at the components of the latter shows a rate of growth in household consumption that is similar to what was observed last quarter. This is due to less of a pronounced decline in durable goods, which would have been offset by additional slowdowns in the other components of private consumption. As for government consumption, sluggishness consistent with the fiscal adjustments that have been announced and implemented by the central government is expected. On the other hand, exports and imports, in real terms, would have declined faster than during the fourth quarter of 2015.

It is important to point out that the first quarter of 2016 had fewer working days. This is because the Easter holiday was in March and not in April, as happened in 2015. On previous occasions, the timing of this holiday had an adverse but temporary impact on sector performance, particularly for industry, as summarized by Parra and Piraján (2013).[6] In that document, the authors estimate the impact of the Easter holiday on GDP growth is close to 40 basis points. In the second quarter, with a higher number of working days, this effect should be reversed, leading to an improvement in the performance of these indicators, particularly during April.

6 See the Inflation Report, June 2013, Box 1 "Calendar Effects on Economic Activity in Colombia." For information on the methodology, see Borradores de Economía, no. 820 and no. 888, 2015.

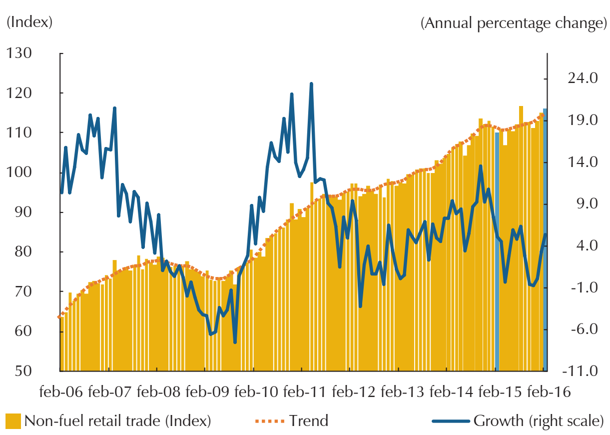
At any rate, there is a great deal of uncertainty about how the economy performed in these first three months, especially since the various economic indicators show mixed results. The "strong indicators", those produced by DANE that serve as input for estimating GDP, suggest economic performance in the first quarter was good; while the auxiliary indicators, which are obtained from other sources, paint a less promising picture.

In fact, the DANE monthly retail trade survey (MRTS) showed 5.4% annual growth in total sales by February. This is higher than the figure on record for the first two months of the year (4.3%) and represents an acceleration compared to the fourth quarter of 2015, when these sales were down 0.4% (Graph 22). Discounting vehicle sales, the remaining items increased 6.9% from the same month last year (Graph 23). For the two months, growth was 6.1%. In this case, the data also suggest a build-up in the momentum in monthly retail sales compared to the figure at the end of 2015.

On the other hand, automobile sales declined. The retail vehicle sales index of the MRTS was down 2.6% annually by February. The two-month aggregate declined -5.5% compared to -24.5% for the fourth quarter of last year. This apparently better performance in the case of automobiles is related to a high base of comparison in the fourth quarter of 2014 (when the XIV Biennial Motor Show was held), which affected the performance of the series during the same period in 2015. However, the records suggest stagnation at levels similar to those observed in 2011 and 2012. This is corroborated by the vehicle registration figures published by the Colombian Automotive Committee. According to these sources (Graph 24), given the figures up to March, vehicle registrations fell 20.0% annually. The aggregate for the first three months of the year was down -17.5%, which is evidence of a recovery compared to the decline observed in the fourth quarter of 2015 (-25.2%). This performance applies to private vehicles (consumer durables) and those for commercial use (investment in transport equipment).

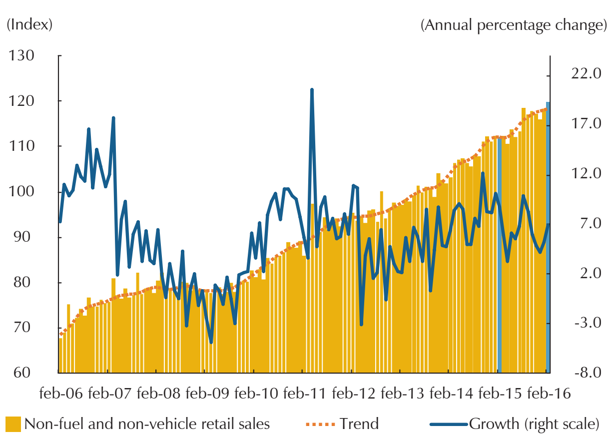
In contrast, other auxiliary indicators that are highly correlated to the rate of growth in private consumption suggest this component of GDP slowed during the first quarter. The consumer

Graph 22
Monthly Retail Trade Survey
(Total Non-fuel Retail Sales, Seasonally Adjusted)



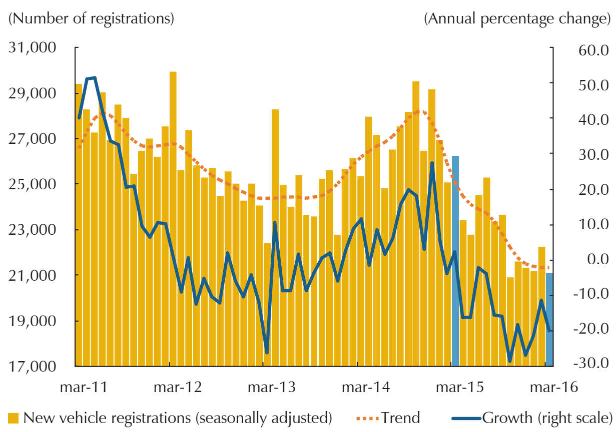
Sources: DANE; calculations by Banco de la República

Graph 23
Monthly Retail Trade Survey
(Total Non-fuel and Non-vehicle Retail Sales, Seasonally Adjusted)



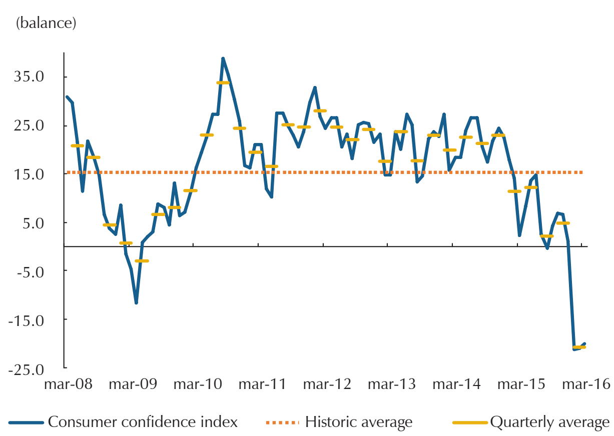
Source: DANE (GEIH); calculations by Banco de la República

Graph 24
New Vehicle Registrations
(Seasonally adjusted series)



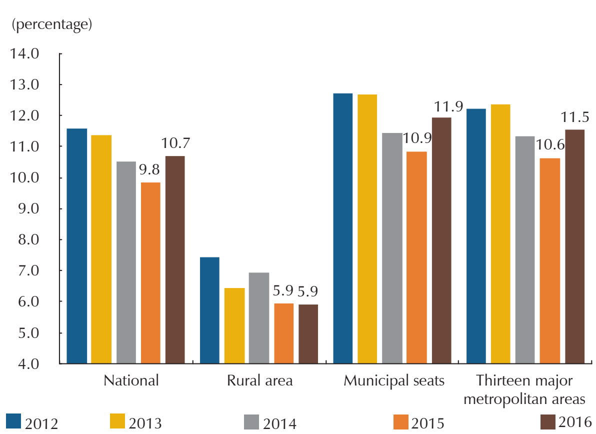
Source: Colombian Automotive Committee (ANDI, Fenalco and Econometría); calculations by Banco de la República

Graph 25
Consumer Confidence Index and Quarterly Average



Source: FEDESARROLLO.

Graph 26
Unemployment Rate (UR)
(January-February-March moving quarter)



Source: DANE and FEDESARROLLO; calculations by Banco de la República

confidence index (CCI) is a case in point. With the information up to March, it again revealed historically low levels (Graph 25). The average for the quarter was the lowest since records have been kept, suggesting a slowdown in household consumption during that period. However, the correlation between these two series has weakened in recent quarters. Banco de la República's monthly survey of economic expectations (MSEE) in February also indicates the annual increase in private consumption slowed during the first quarter of the year, versus what was observed during the fourth quarter of 2015.

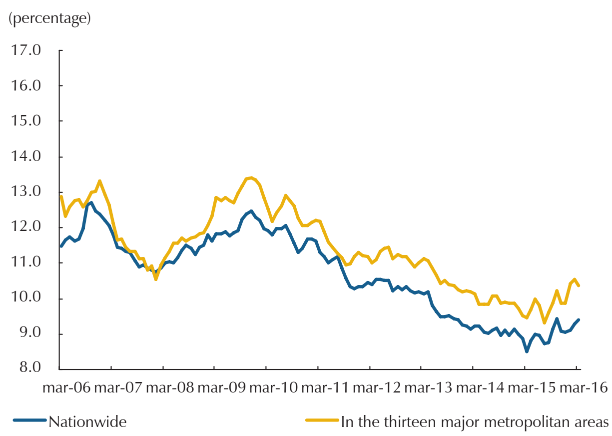
The recent behavior of the job market also points to an increase in the likelihood of a slowdown in private consumption. Signs of deterioration in working conditions in Colombia were observed during the first quarter of 2016. By the moving quarter ended in March, the unemployment rate (UR) in all geographic domains had increased with respect to the same period last year, except in the rural areas, where there were no changes (Graph 26). During that moving quarter, the unemployment rate was 10.7% nationwide, 5.9% in the rural areas, 11.9% in the country's municipal seats and 11.5% in the thirteen major metropolitan areas. When discounting the seasonal effect, we still see an upward trend in the UR nationwide and in the thirteen major municipal areas (Graph 27).

This was explained by a slowdown in employment (measured by the employment to working age population ratio, ER) and an increase in participation (according to the global participation rate, GPR) (Graph 28). The slowdown in employment is evident when analyzing the behavior of the number of employed, which only increased 0.9% annually nationwide during the quarter ending in March and 0.5% in the thirteen major metropolitan areas (Graph 29 , Sections A and B). This growth is still positive, thanks to the behavior of salaried employment, which rose 1.4% annually during the same period, while non-salaried employment declined by 0.5%. As with total occupation, the seasonally-adjusted series show several months of stagnation in the level of salaried employment (Graph 30).

In terms of disposable household income, the increase in consumer loans (nominal) between January and March came to 11.5%, which is less than at the end of last year (11.8%). Also, the cost of access to this type of lending rose, as interest rates increased in nominal terms, broadening the margin.

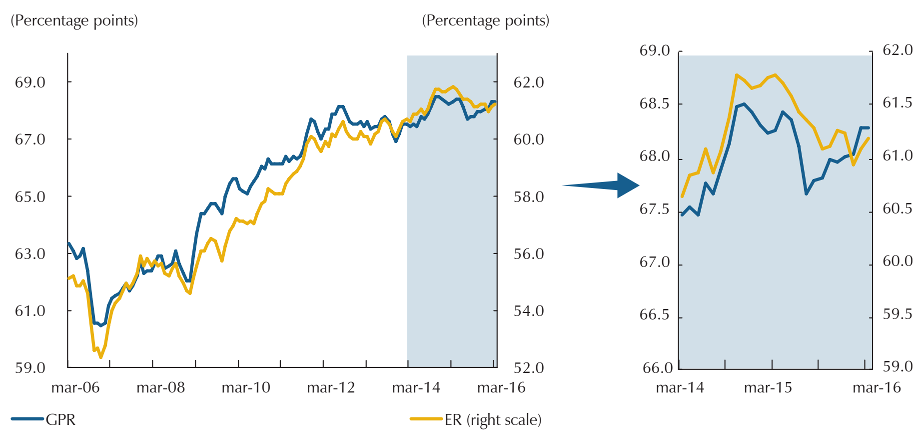
On gross capital formation, the available figures on imports of capital goods (recorded in constant pesos) and the registration records

Graph 27
Unemployment Rate (UR)
(Seasonally adjusted moving quarter)



Source: DANE (GEIH).

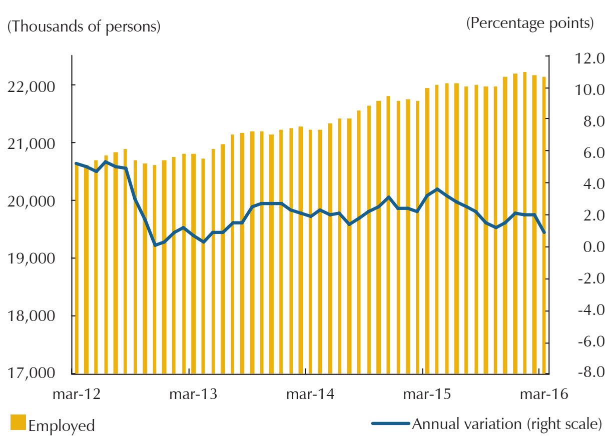
Graph 28
Global Participation Rate (GPR) and Employment Rate (ER)
(Seasonally adjusted, the thirteen major metropolitan areas)



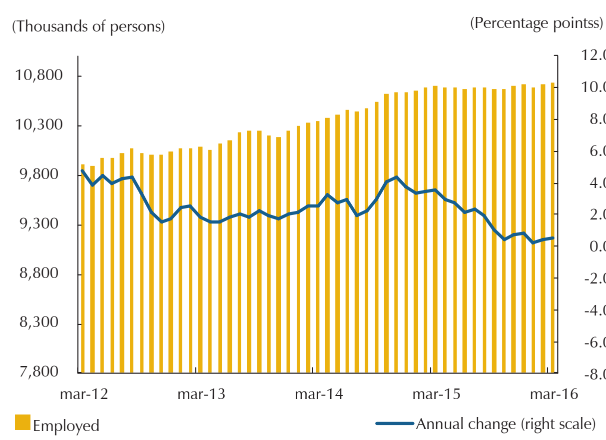
Sources: DANE (GEIH); calculations by Banco de la República.

Graph 29
Number of Employed and Annual Variation

A. Nationwide total

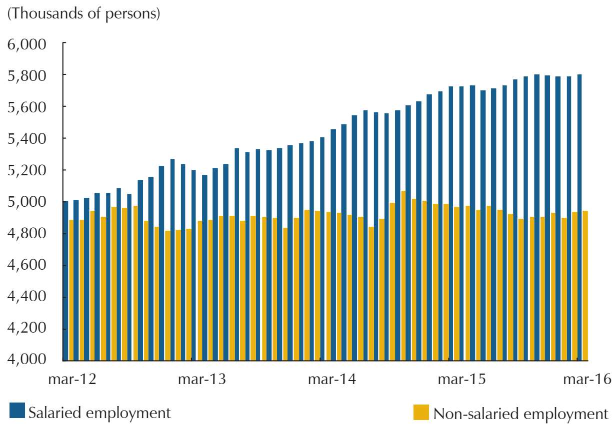


B. Thirteen major metropolitan areas



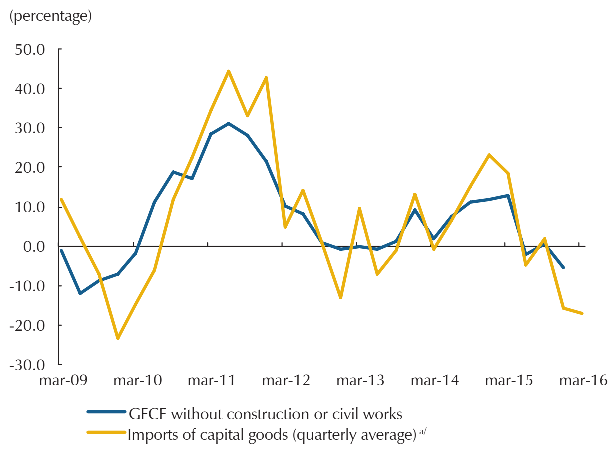
Sources: DANE (GEIH); calculations by Banco de la República.

Graph 30
Employment, by Type of Occupation
(Thirteen major metropolitan areas, seasonally adjusted moving quarter)



Sources: DANE (GEIH); calculations by Banco de la República.

Graph 31
Imports of Capital Goods for Industry and Transport Equipment (Real) and GFCF Excluding Construction of Buildings and Civil Works
(Annual change)



Note: The figure for March is a projection based on preliminary data from DIAN.
a / Figures expressed in real terms, as calculated by Banco de la República.
Sources: DANE (national and foreign trade accounts)

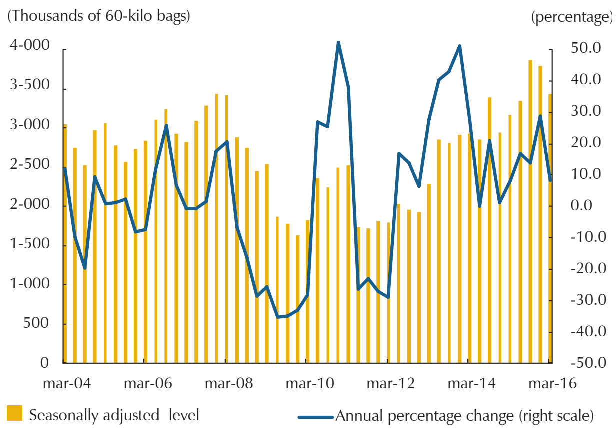
for working vehicles point to less investment spending on machinery and equipment, and on transport equipment during the first quarter of 2016 (Graph 31). Low international prices for the commodities Colombia exports and a further depreciation of the nominal exchange rate would continue to affect investment decisions, both in the mining sector and in other branches of the economy. In the case of civil works, a decline is anticipated, partly due to a high base of comparison for the same period of 2015. In contrast, investment in building construction is expected to perform well, especially construction in the residential sector.

In terms of foreign trade, the figures published by DANE and by the National Tax and Customs Authority (DIAN) on exports in dollars indicate major setbacks, even when these same figures are expressed in real pesos. This situation would be due mainly to poor performance in sales of mining products. Something similar would have happened in the case of imports. The figures in dollars also contracted sharply in January and February. When converting them to constant pesos, the reductions are significant as well, even more so than in the case of exports. The largest adjustments occurred in capital goods and consumer durables, which would be consistent with the way tradable domestic demand is expected to have behaved during the first quarter.

As for the different branches of industry, the indicators at hand suggest an uneven economic performance in the first quarter of 2016, which points to a slowdown in growth compared to the fourth quarter of 2015. The best news comes from agriculture, commerce and manufacturing. Mining, in contrast, has not performed well. The figures for construction show mixed results.

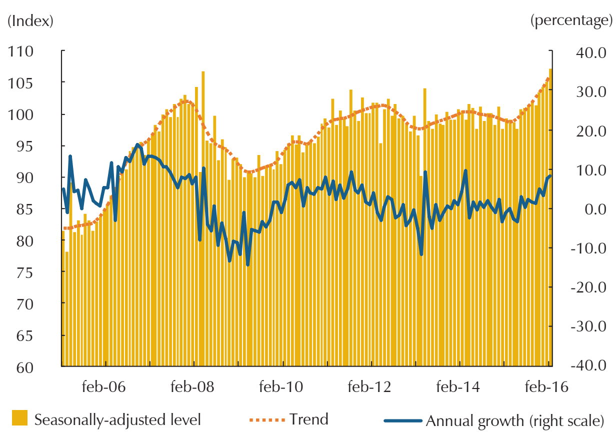
According to the National Federation of Coffee Growers, although the increase in coffee production declined from 24.5% in the fourth quarter of 2015 to 9.6% in the first three months of 2016, the sector continued to perform well, above what was anticipated three months ago and better than the economy as a whole (Graph 32).

Graph 32
Coffee Production
(Quarterly and annual growth)



Sources: National Federation of Colombian Coffee Growers; calculations by Banco de la República

Graph 33
Total Real Industrial Production
(Seasonally adjusted series, trend component and annual growth)



Sources: DANE; calculations by Banco de la República

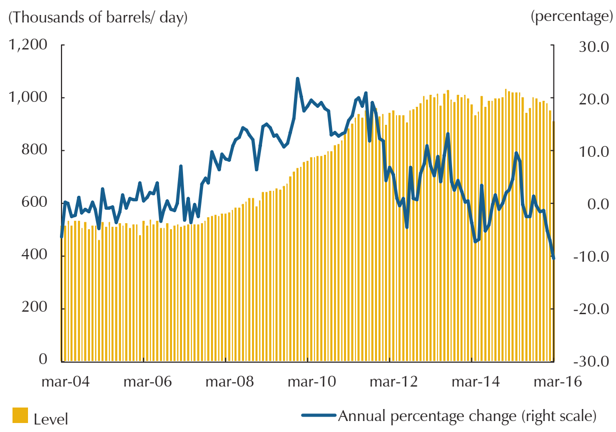
The slaughter of livestock has continued to increase, although at a modest rate (1.9% for the two months from January to February). However, it is still uncertain what impact El Niño weather will have on this subsector of the economy.

Performance in industrial manufacturing has been favorable, likely due to the reopening of Reficar and the effect accumulated depreciation has had on the tradable sectors, such as those producing clothing, textiles and leather goods. According to the DANE Monthly Manufacturing Survey (MMS), this sector grew 8.2% overall in February and, if oil refining is excluded, growth in the other manufacturing industries comes to 5.7%. So far this year, manufacturing overall would have expanded by 7.9%, as opposed to 5.0% without oil refining. The trend component of both series shows a significant increase and confirms the recovery in industrial manufacturing (Graph 33). Yet, the situation is still far from uniform, and some sectors associated with sugar processing and the manufacture of vehicles and engines have registered important declines.

In this regard, the Fedesarrollo business opinion survey for the industrial sector, with information up to March, showed further improvements in both orders and inventories, suggesting the recovery would continue. Expectations for three months out have improved as well, but in an environment where the volatility indicator is high and makes it impossible to ratify any clear trend. In summary, industrial confidence improved during the first three months compared to what it was a year earlier. Moreover, according to the Business Opinion Survey conducted by the National Business Association of Colombia (ANDI), the use of installed capacity is at levels close to its historical average, and the business climate is better. The exchange rate, raw material costs and less demand are the main problems cited by the industrialists who were polled for the ANDI survey.

According to figures released by the Colombian Mining Association (ACM), coal production during the year up to February stood at 13.1 million tons, which implies an annual contraction of around 7.0%. However, the outlook for the sector is more troubling when considering that coal exports fell 10.5% during March. This is based on the figures for export volumes published by DANE.

Graph 34
Oil Production
(Level and annual growth)



Sources: National Hydrocarbon Agency (ANH); calculations by Banco de la República

Oil production also continued to decline at the beginning of the year, at an increasing pace and reaching levels under one million barrels per day: 951 thousand barrels per day (tbd) compared to 993 tbd the quarter before. The annual contraction in the sector during the first three months of the year came to 7.4%. By March, with at 916 tbd, production was down 10.3% with respect to the same month a year ago and 4.2% compared to the month before (Graph 34).

The indicators for construction show mixed performance. Cement production and sales were up 5.8% and 3.6%, respectively, as shown by figures up to February. In contrast, building permits were down 23.3%. Although the statistics on concrete show 3.2% growth overall, there are some internal disparities. For example, concrete for buildings and homes is growing (11.4% and 4.7%, respectively), but has contracted sharply for civil works and other types of construction (-9.9% and -7.3%).

All these factors seem to indicate annual GDP growth in the first quarter of 2016 would be less than what it was in the final quarter of 2015. Accordingly, growth is expected to have been between 1.8% and 3.2%, with 2.5% being the most likely figure. The breadth of the forecast range is consistent with the uncertainty surrounding the performance of government consumption and civil works, among other factors.

III. Recent developments in inflation

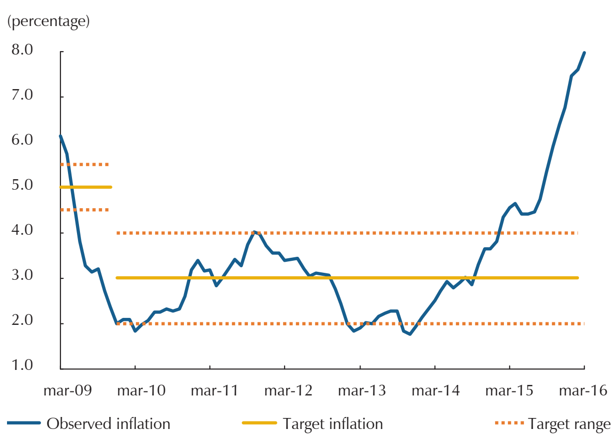
At the end of the first quarter of 2016, annual consumer inflation continued to trend upward, exceeding the forecasts outlined in the previous edition of the Inflation Report.

The average of the core inflation indicators also continued to rise during that quarter, remaining above the target set by the Board of Directors of Banco de la República.

The current bout of El Niño weather, coupled with the accumulated depreciation of the exchange rate and increased indexation explain the bulk of the price hikes witnessed so far this year.

Consumer prices during the first quarter of the year remained subject to considerable upward pressures. Annual inflation in the consumer price index (CPI) was 7.98% by the end of March; that is, 121 basis points above the rate posted in December 2015 (Graph 35 and Table 6). This time, as was the case several quarters earlier, the outcome for inflation exceeded predictions of market analysts and those of the technical staff at Banco de la República.

Graph 35
Total Consumer Inflation



Sources: DANE and Banco de la República.

The hikes in consumer prices during the first three months of 2016 were widespread, with swelling annual changes in all the major groups that make up the CPI basket (tradables, non-tradables, regulated items and food). As in the previous two quarters, the price increases on this occasion came from two main sources: 1) significant accumulated depreciation of the peso against the dollar as of mid-2014, which rose to 80.67% for the average in February 2016, and 2) the climate shock caused by El Niño, which has been one of the most intense phenomena of its type in last five decades. While depreciation directly affected prices for

Table 6
Consumer Inflation Indicators
(At March 2016)

Description	Weighed	Dec-15	Jan-16	Feb-16	Mar-16
Total	**100.00**	**6.77**	**7.45**	**7.59**	**7.98**
Excluding food	**71.79**	**5.17**	**5.54**	**5.88**	**6.20**
Tradables	26.00	7.09	7.39	6.97	7.38
Non-tradables	30.52	4.21	4.46	4.86	4.83
Regulated items	15.26	4.28	5.02	6.35	7.24
Food	**28.21**	**10.85**	**12.26**	**11.86**	**12.35**
Perishables	3.88	26.03	31.31	27.42	27.09
Processed	16.26	9.62	10.22	10.26	10.83
Meals outside the home	8.07	5.95	6.78	7.09	7.53
Core inflation indicators					
Non-food		5.17	5.54	5.88	6.20
Core 20		5.22	5.56	6.25	6.48
CPI excluding perishable foods, fuel and public utilities		5.93	6.13	6.41	6.57
Inflation excluding food and regulated items		5.42	5.69	5.75	5.91
Average of all the indicators		**5.43**	**5.73**	**6.07**	**6.29**

Sources: DANE; calculations by Banco de la República

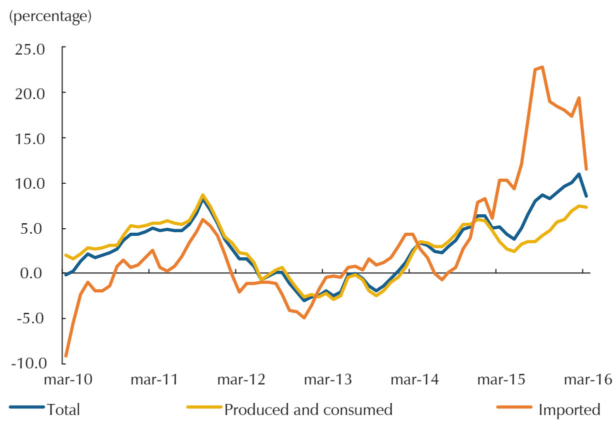
tradable goods and services and had an indirect impact on non-tradable costs, El Niño has affected mainly perishable foods and energy prices.

Consumer prices in 2016 also began to feel the second-round effects associated with the increase in inflation last year, due to the activation of several indexation mechanisms. This has been the case with a number of services related to education and health, among other items.

In contrast, demand does not seem to have been an inflationary factor so far in 2016. As noted in Chapter IV of this report, the estimates of the output gap indicate it stayed near zero in 2015 and during the first months of 2016. Even so, the lower spending growth during those quarters does not seem to have diminished the upward pressures mentioned earlier.

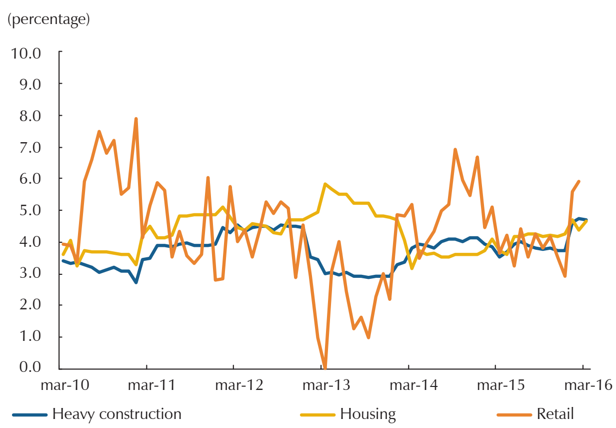
Since the beginning of 2015, the shocks caused by the exchange rate and the weather have passed through to consumer prices largely via costs. This has continued so far in 2016. In the case of non-labor costs, despite some moderation in the early months of the year, the adjustments are still significant, judging by the behavior of the producer price index (PPI) for domestic supply (the imported PPI, plus the PPI for goods produced and consumed internally). Its annual variation was 8.6% by March, which is slightly lower than in December 2015 (9.6%) (Graph 36). The decline in the first three months of the year (from 18.0% in December to 11.5% in March) is due to the imported component, thanks to appreciation of the peso since mid-February. In contrast, the PPI for goods produced and

Graph 36
PPI, by Origin
(Annual change)



Source: DANE.

Graph 37
Nominal Wages
(Annual percentage change)



Sources: DANE; calculations by Banco de la República

consumed rose from 6.0% in December to 7.3% in March, mainly because of pressure from the agricultural PPI, which has been affected by El Niño weather, among others factors.

As for labor costs, the recent momentum in wage adjustments, given the data at February and March, may signal rising inflationary pressures. Although these adjustments exceed the inflation target by quite a bit, they are still at rates below than the hike in the minimum wage (the situation observed in industry is an exception). Wages in heavy construction and home building are a case in point, having increased at an annual rate of nearly 4.7% in March, while wages in commerce went from a 5.6% increase by February to 5.9% in March. Those in industry rose from 6.1% to 8.9% (Graph 37).

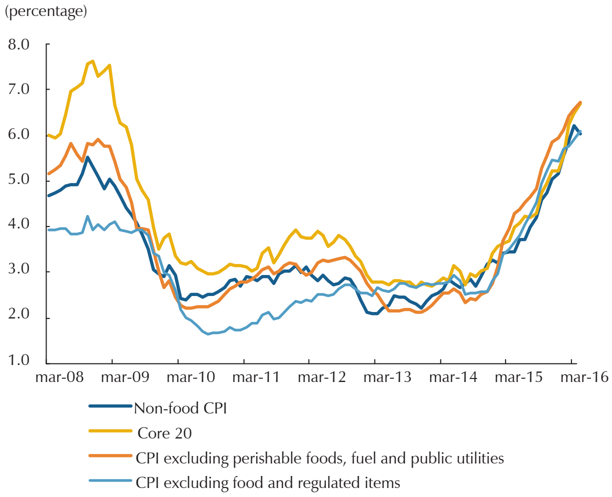
A. CORE INFLATION

Core inflation so far this year, which is measured as the average of the four indicators tracked by Banco de la República, continued the upward trend witnessed since the fourth quarter of 2014. This average rate of inflation increased to 6.29% in March, from 5.43% last December (Table 6). In fact, all the core inflation indicators were up during the first quarter. The largest hike was in the CPI for basic foods, fuel and utilities (6.57%); the lowest was in the CPI excluding food and regulated items (5.91%). The Core 20 CPI stood at 6.48% and the CPI excluding food was 6.20% (Table 6, Graph 38).

The expansion in the annual change in the non-food CPI during the first quarter of 2016 is explained mostly by regulated items, but there also were significant upward pressures on the tradable and non-tradable segments (Table 6, graphs 39 and 40). Inflation in the regulated component went from 4.28% in December to 7.24% in March, accentuating the upward trend observed in 2015. Accordingly, slightly more than 37.0% of the increase in annual inflation during the first quarter originated in that group.

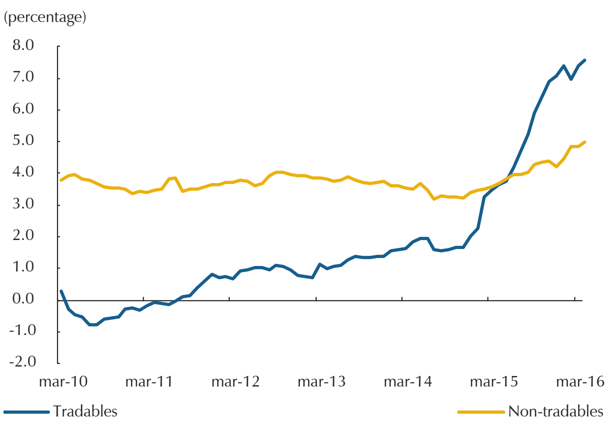
Although the price increases in the consumer basket were generalized, the main ones focused on public utilities. The annual inflation in this item by March (14.0%) far exceeded the December figure (9.7%). Two factors

Graph 38
Core Inflation Indicators



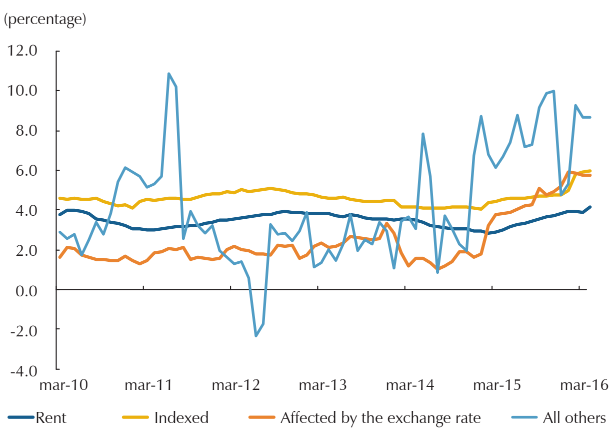
Sources: DANE; calculations by Banco de la República

Graph 39
CPI for Tradables and Non-tradables Excluding Food and Regulated Items
(Annual change)



Sources: DANE; calculations by Banco de la República

Graph 40
Annual Non-tradable Inflation
(Annual change)



Sources: DANE; calculations by Banco de la República

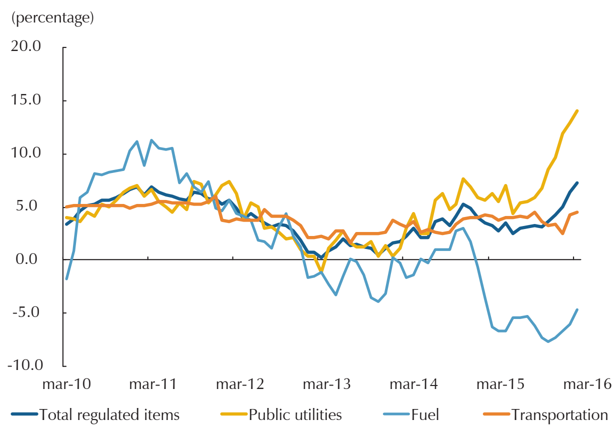
influenced this behavior: the first one concerns El Niño weather and other supply shocks that have prompted sizeable rake hikes for gas and energy; the second is due to the activation of mechanisms for indexation to both the CPI and the PPI, plus accumulated depreciation of the peso.

Gas prices have been affected by bottlenecks in transport and by the high demand placed on the plants producing thermal energy. These facilities have had to make up for less hydroelectric power being generated because water reservoirs are low due to lack of rain as a result of El Niño. This situation has affected electricity rates, which also have been influenced by peso depreciation, as well as higher costs because of indexation to the CPI and the PPI, and less power being generated at the start of this year when the Guatapé hydroelectric plant went off-line.

The rate hikes for water, sewage and garbage collection, particularly in March (and probably again in April) are due to the activation of indexation mechanisms. This effect operates whenever 3 pp of inflation accumulate as of the most recent rate hike, which happened during the fourth quarter of last year. A new increase in these rates at the end of the year is possible if consumer inflation accumulates another 3.0%.

The regulated CPI for transportation (urban public transportation) rose as well, but the increase was more moderate, having gone from 3.3% in December to 4.5% in March. This rise reflects the increase in fares for public transportation in Bogota and Cali during the first quarter of this year. In the case of fuel, prices declined during the first three months and the annual change remained in negative territory, but it did increase from -7.3% in December to -4.7% in March (Graph 41). This is explained by a very low base of comparison for the same period in 2015, when the Colombian government decided to reduce the price of gasoline by 300 pesos, considering the drop in international fuel prices at the time.

Graph 41
CPI for Regulated Items and Components Thereof
(Annual change)



Sources: DANE; calculations by Banco de la República

Tradables (excluding food and regulated items) were the other main contributor to the rise in non-food inflation during the first quarter. By March, the annual change in this indicator was 7.4% compared to 7.1% in December, with this group being responsible for 5.3% of the rise in total inflation during the period. Accumulated depreciation, which began in July 2014 and lasted until mid-February 2016, explains the bulk of the build-up in these prices, which nevertheless has not been as intense as it was during the second half of 2015.

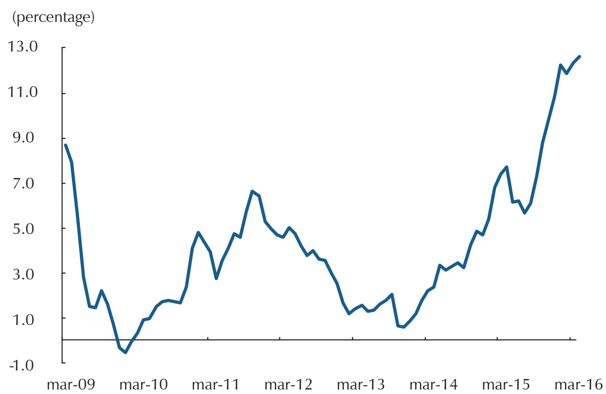
In this regard, between July 2014 and March 2016, the Colombian peso deprecated 69.3% against the dollar (bilateral exchange rate) and 49.8% against a basket of currencies of different countries, weighted according to their participation in Colombian trade (multilateral exchange rate). This is an important factor to bear in mind. During the same period, the cumulative increase in the tradable CPI excluding food and regulated items came to 10.7%. Based on that figure, the elasticity of these prices to the exchange rate is estimated at 15.0% in the case of the bilateral exchange rate and 21.5% in the case of the multilateral rate. These values are even lower than those observed during the episode of depreciation that occurred between April 2002 and September 2003 (32.0% bilateral and 46.3% multilateral), but higher than those observed between March and September 2006, and between June 2008 and July 2009.

The change in the non-tradable CPI excluding food and regulated prices rose from 4.2% in December to 4.8% in March, unlike what happened in the fourth quarter of 2015 (Table 6 and Graph 39). This is the highest level for that group since mid-2009. The price increase, which was generalized in this CPI sub-basket, can be attributed largely to the activation of various indexation mechanisms; however, it also was due to peso depreciation and increased costs, including the minimum wage hike.

The annual change in the CPI for goods and services that are most prone to indexation (health and education, among others) increased from 4.7% in December to 5.9% in March. However, in the case of rentals (a price usually indexed to past inflation), the increases were scant and the annual variation stood at 3.9% in March, which is quite near the December figure. This performance could be explained by an ample supply of housing, especially in the more expensive segments of the market, given the fact that demand would have weakened. However, there is very little evidence in this respect and price indexation in these cases can lag more than expected. On the other hand, the items most affected by the exchange rate varied 5.8% annually by March compared to 5.2% in December, which also is more of an increase than the quarter before.

Given the absence of demand-pulled pressures, some of the other factors that can explain the growing increases in prices for non-tradables, apart from indexation and depreciation, are the hikes in non-wage costs mentioned initially. The rise in inflation expectations in recent quarters points in the same direction

Graph 42
Food CPI
(Annual change)



Sources: DANE; calculations by Banco de la República

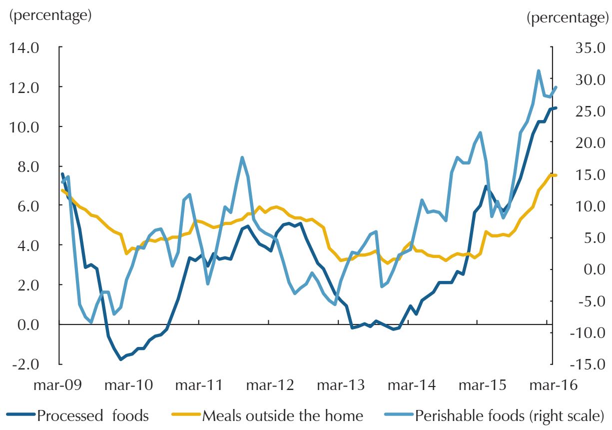
B. FOOD INFLATION

The food CPI continued to fuel annual consumer inflation during the first three months of 2016, as it has for several quarters. By March, the annual change in this sub-index was 12.4%, as opposed to 10.9% in December. This outcome beats the forecasts by Banco de la República's technical staff (Graph 42).

The rise in food prices as of mid-2015 and at the beginning of this year is associated with the negative impact of the current bout of El Niño weather. International meteorological agencies consider it to be one of the most intense in history. This phenomenon, which has led to considerably less rainfall, has reduced the country's agricultural supply by affecting farm productivity and the cattle sector, and by postponing decisions on planting new crops. El Niño has sparked major increases, especially in the prices of perishable foods (vegetables, fruits and tubers): the annual change in the respective CPI stood at 27.1% in March, compared to an already high rate by December (26. 0%).

Although climate shock is the most important factor in explaining the sharp increases in the food CPI, it has not been the only source of upward pressure. During 2015 and in 2016 to date, these prices also were affected by accumulated depreciation of the peso. Added to this is the rise in international food prices witnessed so far this year, all of which has pushed up prices for processed foods, a large percentage of which are imported or have a high percentage of imported input. The annual change in this item was 10.8% by March, surpassing the increase by last December, which came to 9.6%. Particularly noticeable within this group was the upward momentum in prices for fats, oils, cereals, sugar and milk. In addition, the annual change in the CPI for meals outside the home (7.5%) rose again during the first three months of this year,

Graph 43
Food CPI, by Groups
(Annual change)



Sources: DANE; calculations by Banco de la República

affected by higher food prices, rate hikes for public utilities, and the increase in the minimum wage (Table 6 and Graph 43).

Box 2

ELASTICITIES IN EXCHANGE RATE PASS-THROUGH TO PRICES

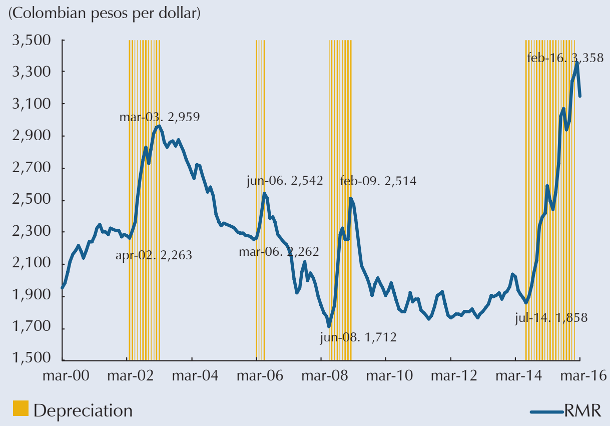
Edgar Caicedo G.
Paola Andrea Jaramillo C.
Nicolás Martínez C. *

Monetary policy in Colombia is governed by an inflation targeting scheme designed to keep the rate of inflation low and stable. For this reason, it is important to measure and understand how prices in the economy respond to fluctuations in the exchange rate, an effect known in economic literature as pass-through (PT). Annual consumer inflation trended sharply upward during 2015 and in 2016 to date, reaching in 7.98% by March 2016. This was due to a variety of variables, one of which is the considerable extent to which the peso has depreciated against the dollar since July 2014. This trend peaked in February 2016, when the monthly average exchange rate was COP 3,357.5 per dollar.

The purpose of this box is to show how the various price indicators in Colombia have evolved during the different periods of depreciation since the year 2000 and to draw a comparison. Based on the information obtained, the authors offer an approximation of the degree to which the bilateral exchange rate (with the dollar US) and the multilateral rate (calculated with the currencies of our main trading partners) have passed through to several indexes; namely, the prices of imports goods (IP), the imported producer price index (imported PPI) and the consumer price index for tradables (tradable CPI). It is important to point out that the PT calculated for this article is limited and quite simple, as it is not intended to be a precise estimate of the lag in the time it takes the exchange rate to pass through to prices, nor is it controlled by the state of the economy or intended to identify the degree of asymmetry between periods of depreciation and appreciation.

The method used by the authors to estimate the degree of PT consists of calculating a simple elasticity between the accumulated change in each price indicator and the bilateral or multilateral exchange rate for the four depreciation periods that have occurred since 2000 (Graph B2.1). The initial value for each series is the first month of each phase of depreciation, and the final month is the ceiling reached by the exchange rate and by each price variable that is taken into account. It is important to clarify that the

Graph B2.1
Periods of RMR Depreciation in Colombia (monthly average) (2000-2016)



Sources: Financial Superintendence of Colombia and calculations by Banco de la República

peak of the exchange rate in each phase of depreciation does not necessarily coincide with the ceiling of the price variable being compared. The tradable CPI is a case in point; its maximum value invariably was reached several months after the ceiling for the exchange rate, given the lag with which PT operates.

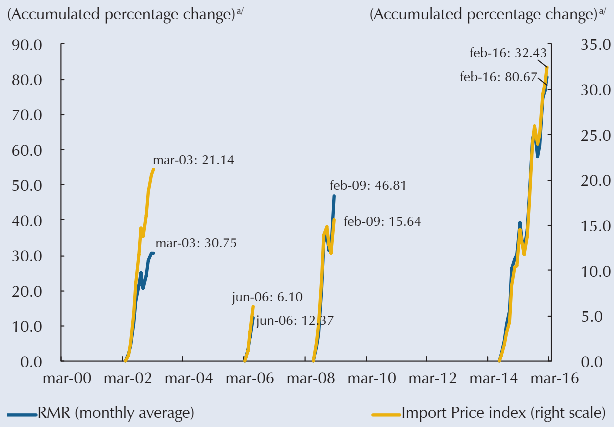
1. Prices of Imported Goods (IP)[1]

As shown in Graph B2.2, the changes in prices for imported goods adjusted quickly and without delay to fluctuations in the representative market rate of exchange (TRM) during all the periods studied. The bilateral exchange rate elasticity of import prices in April 2002-March 2003, when it was highest, closed at 68.8%. In contrast, during June 2008-February 2009, at its lowest, it was 33.4%. In the current period of depreciation, elasticity (40.2%) is higher than in the third period, but lower than during the first (Graph B2.3).

* Mr. Caicedo is a senior economist in inflation and Ms. Jaramillo and Mr. Martínez are student interns. They all work with the Programming and Inflation Department at Banco de la República. Their opinions imply no commitment on the part of Banco de la República or its Board of Directors.

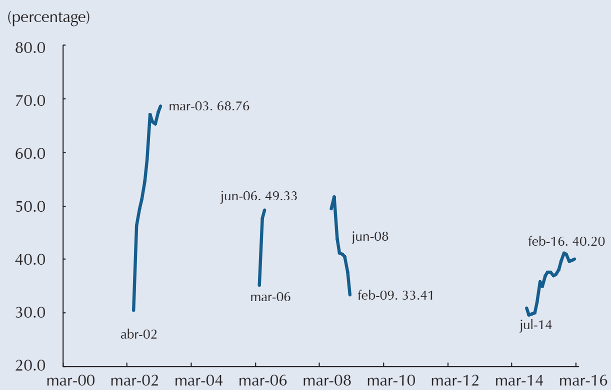
1 The terms of trade index is defined as the ratio of the export price index (PX) to the import price index (IP). This last price variable was used, as it offers the advantage of having broad coverage because it includes a high percentage of the transactions that are carried out. For further details see, “Metodología de cálculo de los índices de precios de exportaciones, importaciones y términos de intercambio según los índices de precios del productor (IPP)”. Available in: http://www.banrep.gov.co/sites/default/files/paginas/Nota_metodologica_terminos_intercambio_comercio_exterior.pdf

Graph B2.2
RMR: Prices of Imported Goods



a/ The change from the start of the period of depreciation up to the maximum value registered for the RMR and the price index for imported goods.
Sources: : Financial Superintendence of Colombia and DANE; calculations by Banco de la República

Graph B2.3
Elasticity[a/] RMR: Prices of Imported Goods



a/ Accumulated change in PI (%) / Accumulated change in the RMR (%)
Sources: Financial Superintendence of Colombia and DANE; calculations by Banco de la República

The pass-through of the multilateral exchange rate to import prices has been greater than the pass-through calculated with the bilateral exchange rate in the depreciation periods from April 2002 to March 2003 (98.42%), June 2008 to February 2009 (55.41%) and July 2014 to February 2016 (55.43%). Between March 2006 and June 2006, the elasticity of the multilateral exchange rate (49.0%) and the bilateral exchange rate (49.3%) tended to be similar (Table B2.1).

2. Imported PPI

As with import prices, the pass-through of changes in the bilateral exchange rate to changes in the imported PPI was the highest during the episode of depreciation between April 2002 and March 2003 (72.3%). The lowest occurred during the episode from June 2008 to March 2009 (32.9%). In the current depreciation period up to February 2016, elasticity stands at 38.0% (Graph B2.5). It should be noted that, in general, both the bilateral and multilateral elasticities of the prices of imported goods are close to those of the imported PPI. This last index also adjusts quickly to changes in the RMR, with no significant lag (Table B2.1).

3. Tradable CPI

As with the other price indicators studied, the degree of pass-through to the tradable CPI is higher in the case of the multilateral exchange rate than what was observed with the bilateral exchange rate during the periods in question, except for the episode of depreciation between March and June 2006, when the elasticities were similar.

During the period with the highest elasticity of bilateral exchange rate pass-through to prices for consumer tradables (2002-2003), once the RMR reached its peak in March 2003 (COP 2959.01), the response from the tradable CPI extends for more than a year, up until June 2004 (Graph B2.6). This is important to note.

In the current episode of depreciation, the elasticity of the tradable CPI to fluctuations in the bilateral exchange rate came to 15.0%. This is far less than the level observed for the period from April 2002 to June 2004, when it was highest (55.2%). However, it surpassed the extent observed between June 2008 and April 2009, when it was lowest (7.5%) and is somewhat less than the elasticity of 17.6% calculated for the depreciation period in 2006 (Graph B2.7).

The main findings were the following:

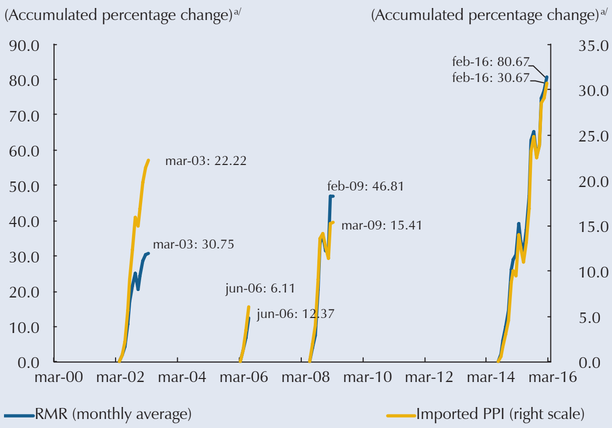
- The pass-through of exchange rate fluctuations to prices for imported goods and the imported PPI is greater than pass-through to the tradable CPI. This suggests that the longer the marketing chain, the more exchange rate pass-through to prices tends to dilute.
- In the case of the index of import prices obtained from terms of trade and the imported PPI, fluctuations in the exchange rate tend to pass through immediately. This does not happen with the tradable CPI, which tends to adjusts with a lag of one quarter or more.
- In general, bilateral exchange rate pass-through was observed as being less than multilateral exchange rate pass-through. The only exception was the episode of depreciation that occurred between March and June 2006, when the figures were similar.
- The extent of pass-through is different in each episode of depreciation, and this depends on the intensity and duration of peso depreciation and the state of the economy.

Table B2.1
Pass-through Coefficients (Bilateral and Multilateral)

		Exchange Rate (ER)		Prices (P)		
		Bilateral ER[b/]	Multilateral ER[c/]	Price Index for Imported Goods	Imported PPI	Tradable CPI
Apr-02		2,263.11	127.08	88.30	84.55	72.07
Mar-03		2,959.01	154.38	106.97	103.34	
Jun-04						84.31
Accumulated change (percentage)[a/]		30.75 a_1	21.48 a_2	21.14	22.22	16.98
Elasticity	Bilateral ER p/a_1			68.76	72.27	55.24
	Multilateral ER p/a_2			98.42	103.45	79.06
Mar-06		2,262.36	126.99	102.29	98.52	88.24
Jun-06		2,542.24	142.80	108.53	104.54	
Sep-06						90.17
Accumulated change (percentage)[a/]		12.37 b_1	12.45 b_2	6.10	6.11	2.18
Elasticity	Bilateral ER p/b_1			49.33	49.39	17.61
	Multilateral ER p/b_2			49.02	49.08	17.50
Jun-08		1,712.28	103.34	88.12	86.77	97.70
Feb-09		2,513.74	132.50	101.90	99.99	
Mar-09					100.14	
Apr-09						101.13
Accumulated change (percentage)[a/]		46.81 c_1	28.22 c_2	15.64	15.41	3.52
Elasticity	Bilateral ER p/c_1			33.41	32.92	7.52
	Multilateral ER p/c_2			55.41	54.59	12.47
Jul-14		1,858.40	92.88	92.25	91.87	106.85
Feb-16		3,357.50	147.22	122.17	120.05	
Mar-16						119.74
Accumulated change (percentage)[a/]		80.67 d_1	58.50 d_2	32.43	30.67	12.06
	Bilateral ER p/d_1			40.20	38.03	14.95
	Multilateral ER p/d_2			55.43	52.43	20.62

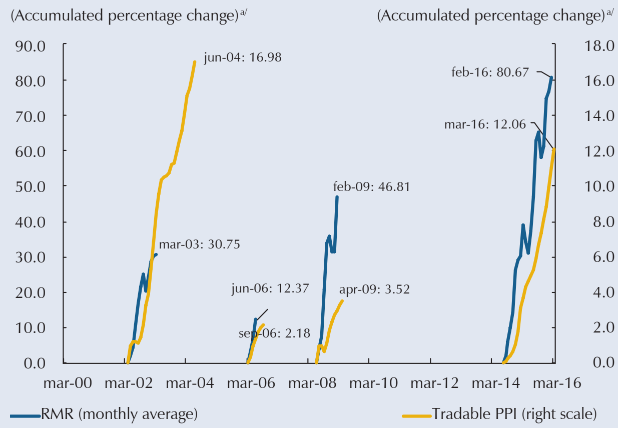
a/ Pertains to the change from the start of the initial period of devaluation up to the maximum value registered for the RMR (monthly average) and the index of each inflation indicator.
b/ Pertains to the representative market rate of exchange (RMR) (Colombian peso/US dollar).
c/ Pertains to the average nominal exchange rate for the Colombian peso (non-traditional trade weighted) with respect to the currencies of Colombia's major trading partners.
Sources: : Financial Superintendence of Colombia and DANE; calculations by Banco de la República.

Graph B2.4
RMR – Imported PPI



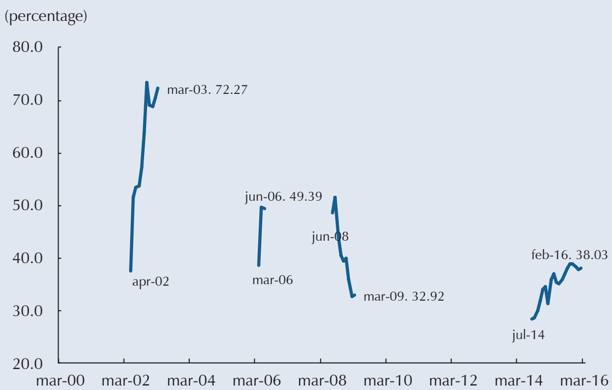
a/ The change from the start of the period of depreciation up to the maximum value registered for the RMR and the imported PPI.
Sources: Financial Superintendence of Colombia and DANE; calculations by Banco de la República

Graph B2.6
TRM-IPC Tradable



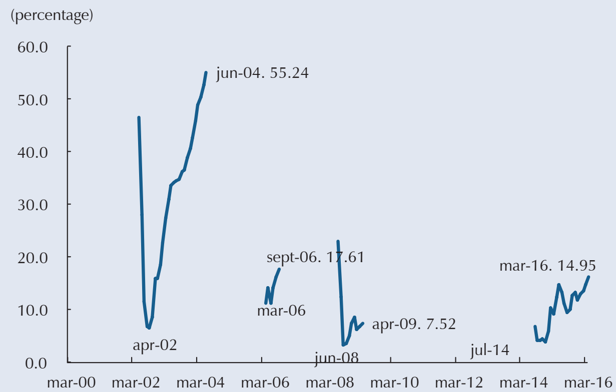
a/ The change from the start of the period of depreciation up to the maximum value registered for the RMR and the imported PPI.
Sources: Financial Superintendence of Colombia and DANE; calculations by Banco de la República

Graph B2.5
Elasticity[a/] RMR-Imported PPI



a/ Accumulated change in the imported PPI (%) / Accumulated change in the RMR (%)
Sources: Financial Superintendence of Colombia and DANE; calculations by Banco de la República

Graph B2.7
Elasticity[a/] RMR-Tradable CPI



a/ Accumulated change in the imported PPI (%) / Accumulated change in the RMR (%)
Sources: Financial Superintendence of Colombia and DANE; calculations by Banco de la República

IV. Medium-term forecasts

The growth forecast for 2016 was reduced to 2.5%, within a range of 1.5% to 3.2%. There is a great deal of uncertainty about growth, and the risks are tilted to the downside, mainly due to the performance of our trading partners.

The central forecast for annual consumer inflation in the next eight quarters was raised in this report, compared to the previous edition.

The inflationary shock would persist longer than previously anticipated. This is due to the effect of El Niño weather, which has been more intense than anticipated, and to the significant amount of indexation that has occurred.

A. ECONOMIC GROWTH IN 2016

The most likely forecast for GDP growth this year was revised downward in this report compared to the forecast published last quarter. According to the information available for the current year, some of the risks considered in the last report have materialized, particularly those related to less growth for our major trading partners and the region. This deterioration occurred along with terms of trade that would be lower than in 2015, and an exchange rate that will continue to depreciate more than last year. Added to this is higher-than-expected consumer inflation and adjustments in monetary and fiscal policies that are aimed at a less expansionary stance, all in an environment of considerable uncertainty.

The risks contemplated in the past have materialized, particularly those related to less growth for our major trading partners and the region.

The major changes in assumptions about the external situation, compared to the previous edition of the Inflation Report, are related a lower growth forecast for our major trading partners. As explained in Chapter I of this report, worse performance is in the region, especially in the case of Venezuela, Brazil and Ecuador. This would weaken external demand for Colombian goods and services even more than was forecasted in the previous

The additional setback forecast for terms of trade in 2016 is bound to have an impact public spending and investment.

report; especially in the case of those classified as non-traditional exports. Moreover, the possibility of the risk associated with these countries spreading to the external vulnerability indicators of other countries in the region, including Colombia, cannot be ruled out. In contrast, the normalization of monetary policy in the United States is expected to occur more slowly than anticipated in earlier versions of this report. However, this would not imply challenges to external financing for the Colombian economy beyond those that were contemplated last quarter and originate with increases in the cost of financing.

The prospect of lower prices for Colombia's main commodity exports is maintained in this report. Implicit in the forecasts presented herein for the most likely scenario is an international price for oil at around USD 35 per barrel in 2016. Price declines for coal and ferronickel also are expected. As explained in Chapter I, although this would be less than the level observed in March and the first weeks of April, the fundamentals of the oil market suggest there is a high risk that the prices posted recently will not hold in short and medium term.

All this assumes a setback in terms of trade for the year, although less than the 2015 decline. The effect this would have on available national income would impact government spending and the performance of investment in the mining-sector. The latter is suggested by recent announcements by a number of companies in the sector indicating they plan to reduce production and operations.

Accordingly, domestic demand in 2016 would not live up to the growth rates observed during the past year. Specifically, gross fixed capital formation is not expected to perform well, partly because of the cutbacks anticipated by firms in the mining sector. The forecasts developed by Banco de la República's technical staff and outlined in this report also assume the adjustment in the Colombian economy would occur mainly through private investment, which accounts for a large share of imported goods. In this sense, accumulated depreciation of the nominal exchange rate and the pass-through of interest rate hikes to the market would affect spending on capital goods and transport equipment more than was forecasted earlier.

Domestic demand in 2016 will increase at lower rates than those witnessed last year.

In the case of spending on investment in construction, which is probably less import-intensive, positive growth is expected, above the other of items that make up gross fixed capital formation. In principle, building construction should receive a boost from the residential side, associated with consolidation of the second version of national government's proposed Plan to Improve Productivity and Employment (PIPE 2.0), and from the subsidized interest rate for new home purchases. The construction of civil works in 2016 would continue to be fueled by spending on a number of strategic projects for roads and airport facilities that already are underway in different parts of the country, in addition to initial payments on contracts

Price increases, interest rate hikes and a less dynamic job market are factors that would slow private consumption.

awarded for work associated with the start-up of infrastructure projects that are part of the so-called fourth-generation concession program (4G). Even so, it is estimated that the increase in this component of GDP would be slightly less than it was in 2015

A slowdown in private consumption also is expected. Growth in this sector is tempered by several factors. The first relates to the rise in the level of consumer prices, which tends to diminish the purchasing power of household income in Colombia, even though the second half of the year is expected to see some reduction in inflation (as explained in Section B of this chapter). Added to this is the effect of the recent interest rate hikes, which discourage demand for credit on the part of consumers. Moreover, this report anticipates a less dynamic job market and an unemployment rate that could continue to rise, which would bring additional pressure to bear on disposable household income in real terms.

With respect to government spending, as outlined in earlier editions of this report, the probability that the central government will strengthen the fiscal adjustment it has undertaken and thus the actual effects this would have, remains unchanged,

Foreign trade is expected to show some annual declines. To begin with, traditional exports (in real terms) would be affected by planned reductions in oil and coal production, as announced by a number of companies in the mining sector. There would be no significant growth in coffee exports, partly because of the high base of comparison for 2015. Secondly, non-traditional exports would face barriers to expansion, partly because of the prospect of poor performance on the part of our trading partners. Estimates show the gains in competitiveness derived from accumulated depreciation of the exchange rate, would not be reflected entirely in non-traditional export performance, largely because this production would be used to satisfy domestic demand. Consequently, a certain degree of import substitution for domestic products is anticipated for 2016. Fewer imports are also anticipated, due to the way domestic demand for tradables is expected to behave; namely, consumer durables, and investment in machinery for industry and in transportation equipment.

Cumulative depreciation of the peso is expected to fuel performance in various branches of the economy that produce tradables, especially through import substitution.

On the supply side, accumulated depreciation of the peso is expected to bolster performance in numerous branches of the economy that produce tradables, especially through import substitution, although export services also will be of some importance.

Industry should see more growth in 2016 than in 2015. The reopening of the Cartagena Refinery (Reficar) is expected to bolster GDP growth significantly with respect to petroleum derivatives, which account for near 12.0% of total industrial GDP. In the central scenario for growth, their impact could be around 5.2 pp for industrial GDP and 0.6 pp for total GDP.

Industry could see 7.0% to 8.0% annual growth in 2016, partly due to the momentum generated by the reopening of Reficar.

A significant recovery in the non-refining industry is expected during 2016 given the effect of accumulated depreciation on the competitiveness of domestic products, insofar as it intensifies the import substitution process. In addition, the major investments made by the sector in previous years also ensure some room in terms of production capacity, as suggested by the utilization rate for installed capacity published by Fedesarrollo. This makes feasible an annual expansion in manufacturing production between 7.0% and 8.0% for the year as a whole.

Growth in the agricultural sector is expected to be moderate. In the case of coffee, it would be less than in 2015, given the effect of a high base of comparison, although productivity gains due to the renovation of coffee plantations and investments made in previous years will make it possible to maintain production at historically high levels (between 14 and 15 million 60-kilo sacks). For other agricultural products and for the group comprised of live animals and animal products, a slowdown with a downside risk is anticipated, due to the impact El Niño weather might have on the agricultural supply and on the slaughter of livestock, especially during the first half of the year.

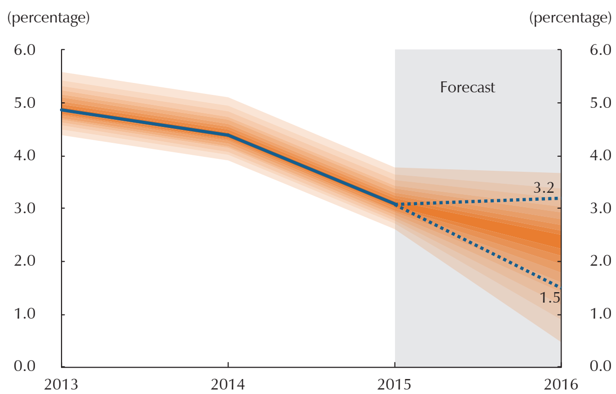
The construction sector will continue to be a driving force of economic growth. As mentioned already, the start-up of first contracts awarded for the 4G concession projects will maintain the momentum in civil works construction in the Colombian economy. In addition, local governments are expected to use the royalties they receive to continue to make payments for the construction and maintenance of roads and other engineering projects, which also would contribute to the increase in civil works. As for the construction of buildings, a moderate expansion supported by the government programs mentioned above is expected.

For mining, a major decline in growth in the sector is anticipated. Compared to the last edition of this quarterly report, the assumption for oil production has been lowered from of 955 to 921 mbd, on average, for all of 2016. This represents an annual decline of nearly 8.0%. The reduction in the forecast is due to the poor performance observed during the first quarter, when production dropped 7.4%, and to recent announcements by Ecopetrol and several private companies indicating they are reducing the amount of investment in extraction. Coal production also is expected to drop sharply, given low international prices. Accordingly, the mining sector is expected to perform poorly in 2016, a long way from the double-digit growth rates observed during the mining boom at the end of the last decade.

The mining sector is expected to decline significantly during 2016, with respect to both oil and coal production.

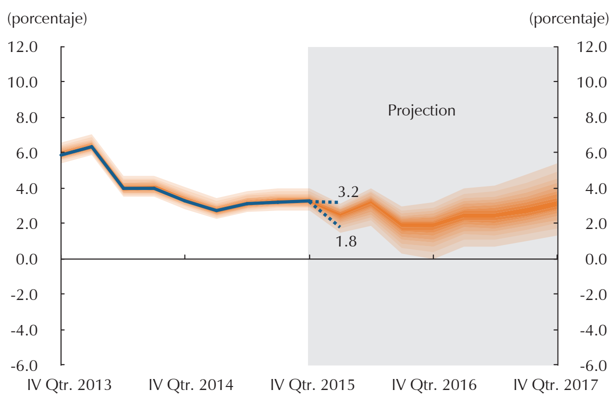
Based on the foregoing, the projection for output growth in the most likely scenario is around 2.5% for 2016 (Graphs 44 and 45), within a forecast range of 1.5% to 3.2% (Table 7). This range remains wide and biased towards the bottom, reflecting the risk of a further slowdown in GDP during the current year.

Graph 44
Fan Chart of Annual GDP Growth



Sources: DANE; calculations by Banco de la República

Graph 45
Fan Chart of Annual Growth in Quarterly GDP



Sources: DANE; calculations by Banco de la República

The main downside risks are associated with the possibility of even less growth for Colombia's trading partners, which would have an added impact on non-traditional exports in the next two years. One of the downside risks in 2016 would be associated with the execution of civil works, including the 4G concession projects, since the payment schedule for these initiatives has been affected in the past. A similar situation could occur with public consumption. Another downside risk in the medium term would be the likely impact an eventual tax reform would have on disposable household income and household spending.

The main upside risk is related to the momentum in private consumption and investment. In a possible scenario where the recent recovery in oil prices, which has shown figures above the central forecast (USD 35 per barrel, on average, for 2016), there would be less deterioration in national revenue, which means the Colombian economy could enjoy even better access to international financing. By the same token, the pass-through of devaluation to tradable production could increase, thereby encouraging more import substitution that is contemplated in the central forecast.

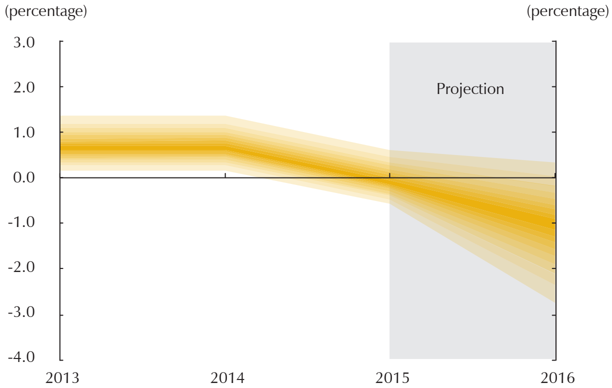
According to the projections for economic growth, the output gap estimation suggests that it would have been positive in 2014 and negative in 2015 and 2016. For 2016, the models show a less negative value than the estimate published in the December report. This is due to a lower estimate of potential growth than last quarter. The likelihood of a negative output

Table 7
Probability Ranges in the Fan Chart of Annual GDP Growth
(Percentage)

Range	2016	2017
< 3.0	82.6	53.3
3.0-4.0	15.8	27.1
4.0-5.0	1.5	14.2
5.0-6.0	0.0	4.5
Between 3 and 5	17.3	41.2
Between 2 and 4	54.4	57.8
Between 1.5 and 3	56.0	41.7

Source: Calculations by Banco de la República

Graph 46
Fan Chart of the Output Gap



Sources: DANE; calculations by Banco de la República

gap in 2016 decreased slightly from the previous edition of this report, reaching 90.0% (Graph 46).

As for the labor market gap, the models suggest the unemployment rate in 2015 would have been very near its level consistent with stable inflation (NAIRU). With respect to the calculations last quarter, there is now a greater risk of the UR increasing in 2016 and being above its NAIRU. As shown in chapter II of this report, the upward trend in the UR seems to be evidence in favor of the forecast signaling a positive gap in the job market towards the end of the year.

The results for the output gap and NAIRU indicate that inflationary pressures originating in a slack job market would have been low and would remain so in 2016. However, the increase in the minimum wage would imply upward pressure on inflation, insofar as it constitutes an additional indexation mechanism.

B. INFLATION

1. Forecasts

The central forecast for inflation, obtained with the models used by Banco de la República's technical staff, was again revised upward in this report, compared to the forecast outlined last quarter. Inflationary inertia and the shocks associated with the weather would have more of an upward impact in the shot- and medium term than was estimated previously.

As mentioned in Chapter III, domestic consumer prices so far this year remained subject to upward shocks stemming from depreciation of the peso and El Niño weather, as predicted in previous reports. However, the impact of these phenomena in recent months has been more intense than anticipated. Moreover, inflation inertia in some prices, partly related to the existence of various indexation mechanisms, would have been stronger than contemplated in the forecasts. Partly because of these circumstances, inflation by March was higher than the projection published in the December edition of this report.

El Niño weather and indexation are likely to continue to bring upward pressure to bear on consumer prices at different horizons. The estimate in this report indicates these effects will be stronger than previously expected, which explains the upward revision in the central forecast.

El Niño weather is expected to dispel between the second and third quarters of the year.

A number of meteorological agencies reported recently that El Niño weather should fade between the second and third quarters of the year, as noted in the last two editions of this report. However, they also confirmed the severity of the current episode, which may be one of the most intense on record. As a result, its effect on prices so far this year might have been underestimated, and its influence might continue to be felt for several months and be more severe than was expected in the beginning, both for food and energy. Apparently, in the case of short-cycle crops, the delay in planting has been significant, which would mean it will take time to restore the supply of staple foods, even several months after rainfall levels have returned to normal (as seemed to be the case in April, when this report was written).

The same meteorological agencies indicate there is an increased the likelihood of La Niña weather by the end of the year. This phenomenon, as opposed to El Niño, usually entails higher than average rainfall. So, it typically does not have a significant impact on the country's agricultural supply, which is why no shock in this respect is contemplated in the current forecast for inflation. Also, it is not yet known with enough certainty how intense La Niña will be.

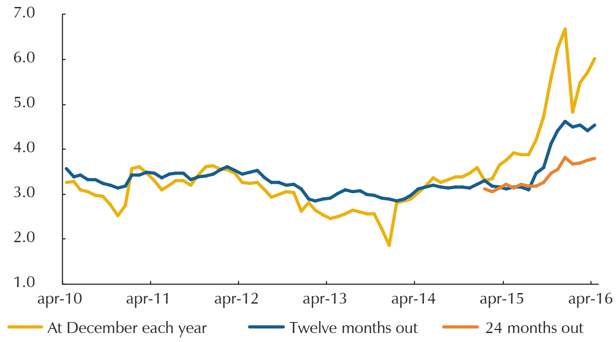
The central forecast for inflation suggests a rise in inflation inertia, which explains part of the increase in the forecasts for the next eight quarters, as outlined in this report. Inflationary inertia may be related to the activation of indexation mechanisms, which are still part of many contracts for price and wages in Colombia. In the case of consumer prices, indexation became more pronounced earlier this year, as expected, given the high rate of inflation at the end of last year. However, this phenomenon tended to be more pronounced than initially expected, and would have manifest itself in price increases, not only for non-tradable goods and services, but also in the case of tradables. In fact, Banco de República's models suggest that, in the case of this second sub-basket, price adjustments usually present a significant degree of inertia.

The inflationary shock has persisted longer than expected due to higher inflation expectations and the activation of indexation mechanisms.

The increase in inflation inertia also is linked to the fact that expectations remained high with respect to the target, even though expectations did not rose above early January figures in all cases, and even declined in some instances. According to Banco de la República's monthly survey of financial market analysts, conducted early in April, their expectations for inflation by December of this year increased and are now at 6.03%, as opposed to 4.83% reported in early January. For horizons at twelve and twenty-four months, expectations also increased, but much less so, having gone from 4.50% to 4.54% in the first case and from 3.68% to 3.81% in the second (Graph 47).

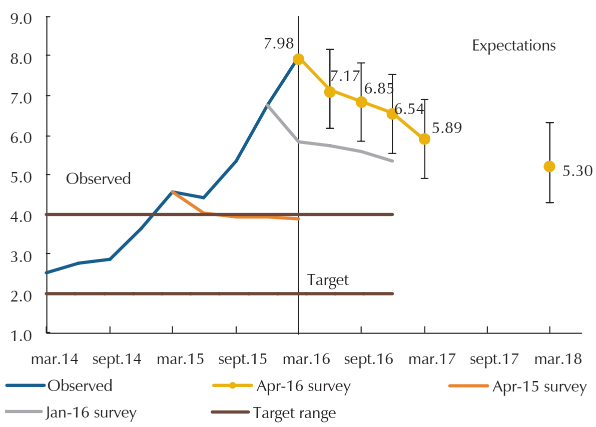
Banco de la República's quarterly survey of the business community also showed significantly higher short- and medium-term expectations for inflation. As an example, the report obtained in April indicates inflation is

Graph 47
Annual Inflation Forecasts by Banks and Brokerage Firms



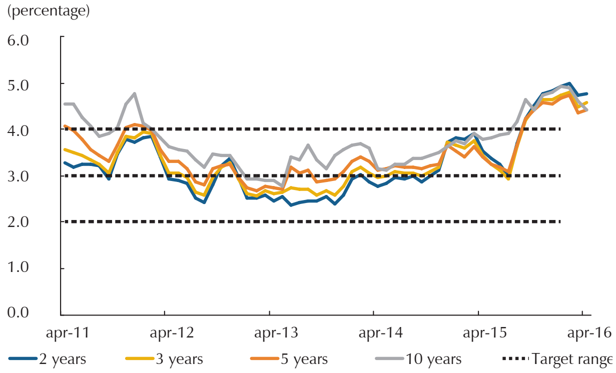
Source: Banco de la República.

Graph 48
Observed Inflation and Inflation Expectations
(At three, six, nine and twelve months)
(Annual inflation)



Source: Banco de la República.

Graph 49
TES-derived Inflation Expectations
(At two, three, five and ten years)
(Monthly average)[a/]



Observation: The respective standard deviation is presented for each expectation.
Source: Banco de la República (Quarterly Survey of Expectations) and DANE

expected to be 5.89% in twelve months, while the figure in January was 5.35% (Graph 48).

On the contrary, in the case of expectations derived from TES rates, some declines were observed last quarter, but the figures are still high compared to the target of 3.0%. At horizons of two, three and five years, the expectation for inflation, based on estimates at the beginning of April, is 4.76%, 4.57% and 4.40%. In January, these rates were 4.91%, 4.73% and 4.66%, respectively (Graph 49).

Wage costs will bring upward inflationary pressure in the future, increasing the persistence of the inflationary shock. Wage adjustments at the beginning of this year suggest there is a process of indexation, albeit incomplete, with respect to inflation late last year, at least in salaries other than the minimum wage. Less economic growth in 2016 (see section A in this chapter) would mean a less dynamic job market, which could result in an increase in the unemployment rate, beyond what has been observed already. This could partially curb wage adjustments in 2016, but perhaps not enough to ensure they are compatible with the target range (from 2.0% to 4.0%). To the extent that inflation may end this year well above 3.0%, the situation in 2017 could be similar.

On the other hand, growth in 2016, below its potential or non-inflationary level, points to a negative output gap, which would suggest the absence of demand-pulled inflationary pressures this year and most likely during the next. However, the size of the estimated gap offers no expectation of significant disinflationary pressures that might compensate the upward pressures that are anticipated on other fronts, at least for the remainder of 2016.

There were no substantial changes in the prognosis for depreciation, even though it accelerated considerably during the first month and a half of 2016. However, this trend quickly reversed in the weeks thereafter, so the direct impact of this short episode on prices would be very limited. As explained in Chapter I, there has been little change

Wage costs also would bring upward pressure to bear on inflation in the future.

in the average for the price of oil and other commodities so far in 2016. Although the forecasts for growth of our trading partners during the current year and the next were revised downward, as were the projections for export volumes of oil and other commodities, the forecast for imports also declined, considering that lower growth is anticipated for the Colombian economy (see Section A in this chapter). So, the forecast for the current account deficit and aggregate capital flows did not change substantially, all of which leads to a path for the exchange rate that is very similar to what was anticipated in the last quarterly report.

Therefore, at least directly, accumulated depreciation of the peso is not exerting added pressure on consumer inflation versus the estimate three months ago, although it will continue to pass through to the extent anticipated already. Yet, indirectly, accumulated depreciation will continue to have an important impact on prices, via the different indexation mechanisms that have been mentioned and perhaps more so than was estimated in previous reports. The expectation is that the direct and indirect effects will begin to give way at the end of 2016 and especially in 2017.

The forecasts for all the baskets that contribute to inflation, as calculated in this report (food, regulated items, tradables and non-tradables), increased with respect to those in the December edition. In the case of food and regulated items (via electricity rates, mainly), this occurred partly because the impact of El Niño is expected to be more severe than was forecasted earlier. Furthermore, in these two baskets, as with tradables and non-tradables, the increase also reflects the important role of indexation. One example, in the case of regulated items, is the possible gain in public utility rates later this year. According to forecasts, they would accumulate 3 pp more inflation over the next three quarters. Thus, two annual increases, rather than one, which has been typical for at least the last six years, would be added.

The CPI for tradables, food, regulated items (especially rates for natural gas) and, to some extent, for non-tradables (see Chapter III) will continue to be affected by pass-through of accumulated peso depreciation. The extent of that pass-through in the coming quarters is expected to be similar to what it was last year. However, as mentioned later in this report, there is the risk that it would be greater and more prolonged than usual.

Annual consumer inflation is expected to peak between the second and third quarters of the year. del año.

Considering all these factors, the forecast in this report indicates annual consumer inflation would peak between the second and third quarters of the year, putting off this turning point for about three months with respect to the prediction in the previous report. Annual inflation would begin to ease up between July and September. This would occur slowly at first, but be more pronounced by the end of the year and in early 2017. Inflation next year would be within the target range, although invariably above 3.0%, and its convergence to this amount is forecast in this report as being slower than what was anticipated in the previous report.

The behavior and rate of total inflation is linked closely to the annual change in the food CPI, especially prices for perishables, which should decline significantly or increase very little later this year and in early 2017, with annual adjustments well below 3.0%. Non-food inflation, on the contrary, would decline far more slowly and remain above the target range throughout 2017.

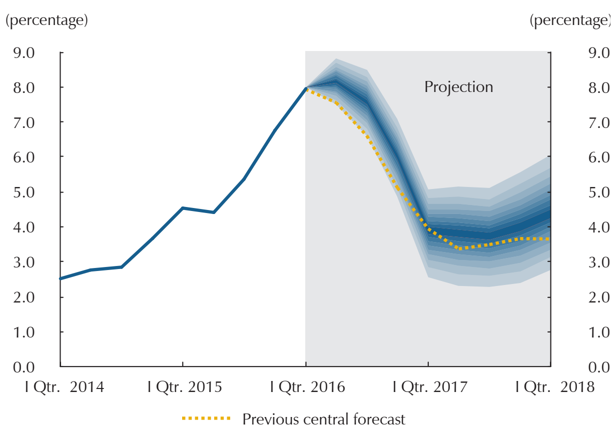
It is important to point out that adjustments in monetary policy will help inflation to converge towards the target, especially when it comes to anchoring expectations and enabling sustainable growth in keeping with the new economic reality, which is characterized by lower terms of trade than in the past. This would occur at a horizon of more than one year, considering it takes four to six quarters for monetary policy adjustments to have an impact on inflation

2. The Risk Balance

The risk balance estimated for total consumer inflation and non-food inflation, as shown in fan charts 50 and 51 in this report, is biased slightly to the downside for 2016 and throughout much of 2017. As explained earlier, the central forecast for inflation outlined in this report is higher than it was in the December edition, and fewer downside risks are perceived now than before.

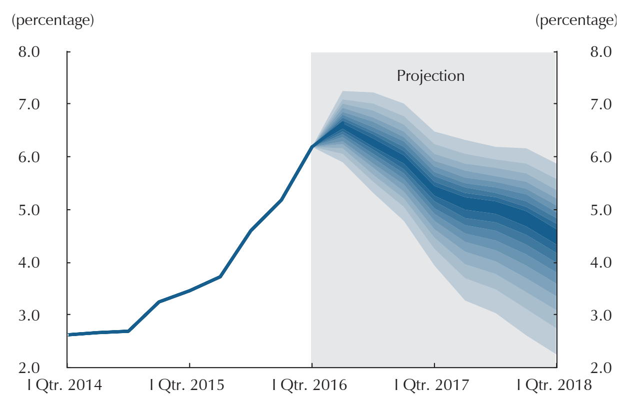
It is important to remember that the central path, around which the fan chart presented in this document was constructed, has an implicit international oil price of USD 35 (per barrel of Brent reference), for the reasons outlined in previous chapters. This price is lower than those observed from late February up to the time this report was written because there is a risk their average level for the year will end up being higher. If this happens, the

Graph 50
Fan Chart of Total Inflation



Source: Banco de la República.

Graph 51
Fan Chart of Non-food Inflation



Source: Banco de la República.

The adjustments in monetary policy will aid the convergence of inflation towards the target. They also will help to anchor inflation expectations and enable sustainable growth in keeping with the new economic reality.

risks that would weigh on inflation are mixed. On the one hand, higher oil prices would tend to be accompanied by a less depreciated exchange rate and, therefore, would result in lower inflation. In turn, one would expect higher international prices for others commodities (especially agricultural products) and increased momentum in domestic demand to bring some upward pressure to bear on certain prices.

Taking into account the aforesaid, the following are the main downside risks considered in this report.

Less global demand than is anticipated in the central forecast: Although the central forecast for inflation in 2016 assumes less growth for our trading partners, as explained in Chapter I, the risks weighing on this variable are still to the downside. This considers the dangers that still face a number of emerging economies, such as China, where the problems associated with financial stability, weak performance in terms of the country's trade balance, and the transition to an economy that is more dependent on consumption than exports and investment might be underestimated. In the case of Latin America, countries like Ecuador are expected to see a drop of -2.5% in 2016 and -2.0% in 2017. This projection was estimated before the shock of the earthquake and is much than what is expected some international agencies such as the International Monetary Fund (about -4.5% for 2016 and -4.3% for 2017). The situation with respect to Venezuela would be similar. Moreover, in the case of the United States, the latest information, which was not contemplated in the central forecast, points to consumption being less dynamic than expected. If confirmed, this would lead to a substantial revision of the forecast for growth this year. Added to this outlook is the increased uncertainty in the political arena, both in the United States and in other countries. If some or a number of these risks were to materialize for Colombia, they could lead to weaker external demand and less investor and consumer confidence, with a negative impact on domestic demand, which would tend to exert downward pressure on consumer inflation.

A sharper unwinding of prices for perishable foods. The fact that El Niño weather has begun to subside means a phase of falling prices for perishables is expected, especially in the second half of 2016 and at the beginning of 2017. For the remainder of 2016, this phase could be more pronounced than anticipated in the central forecast, provided the response to higher prices for the agricultural supply is stronger than expected. Besides eliminating a good deal of pressure on overall inflation, this would help it to converge faster towards the target, especially if it is accompanied by a favorable response to inflation expectations and there is a decline in the impact of indexation.

Less foreign demand and a more pronounced drop in prices for perishable foods constitute the main downside risks to inflation.

Added pass-through of depreciation to tradable inflation and more of an inflationary impact from wage hikes are the main upside risks to inflation.

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

Added pass-through of depreciation to tradable inflation The peso had depreciated considerably by March. Much of that depreciation apparently is permanent, unlike what happened in the other three episodes of significant depreciation that have occurred since 2000. Inasmuch as the historical series do not reflect similar situations, it is possible the models currently being used by Banco de la República are underestimating the degree of pass-through to consumer prices that is contemplated in the central forecast. It also is possible that businessmen absorbed some of that pass-through during 2015, thanks to the large profit margins accumulated during the period of peso appreciation, when consumer prices fell slightly. However¸ by 2016, these margins could be exhausted, in which case businessmen would be prompted to pass through to consumer prices all the dollar gains registered since last year. In other words, even without further increases in the exchange rate, the high levels at present will be reflected in a higher CPI for tradables and the total CPI. This suggests a delayed response from inflation that was not captured by the short- and medium-term models.

More of an impact on consumer prices from wage hikes The minimum wage was increased by 7.0% in 2016, which is similar to the hike in inflation at the end of 2015 and well above target for inflation set by Banco de la República. There might be a similar situation in 2017, since inflation in 2016 very likely will be above 3.0%. Given its importance to the job market, as a reference price, the minimum wage increase this year would begin to generate higher increases in other wages in the economy, as suggested by the figures on industry, construction and commerce. The central forecast does not fully capture this situation and might be underestimating the impact of these wage adjustments on consumer prices, especially towards 2017. In this sense, eventual wage indexation could slow the convergence of inflation to its target with respect to what is forecast in this report.

The probability that inflation will be within the target range increases significantly by 2017.

Considering the aforesaid and after weighing the different risks that are reflected in the fan chart, the likelihood that total inflation will be within the target rate in 2016 is estimated at 0.23%. This probability increases to 49.0% in 2017 (Table 8). It is worth noting that the extent of the density of the forecasts shown in graphs 50 and 51, according to the shaded area, only includes 90.0% of it. These results, like the central forecast, assume there will be an active monetary policy with the policy rate and the interbank rate (TIB) being adjusted to ensure the target is met.

Table 8
Probability Ranges in the Fan Chart of Total Inflation
(Percentage)

Range	2016	2017
< 2.0	0.0	2.1
2.0-2.5	0.0	4.3
2.5-3.0	0.0	9.2
3.0-3.5	0.0	15.4
3.5-4.0	0.2	19.7
> 4.0	99.8	49.3
Between 2 and 4	0.2	48.6

Source: Calculations by Banco de la República.

BOX 3
THE CORE INFLATION INDICATOR

Joao Hernández and Leonardo Barreto*

Recent developments in inflation in Colombia (defined as the change in the consumer price index: CPI) were influenced by the simultaneous presence of two different shocks. On the one hand, there is a group of widespread and lasting shocks that affect a large number of products. The drop in international oil prices and lower foreign interest rates are two examples. On the other hand, some items have felt the impact of specific, short-term shocks, such as prices for unprocessed foods.

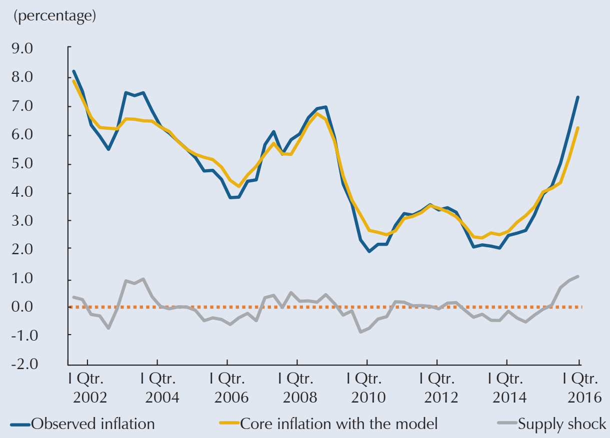
The effects on the CPI reflect two different realities: the first implies a change in the phenomenon of inflation and in macroeconomic conditions (macro-inflation), while the specific shocks are associated with changes in relative prices and with conditions in their respective markets.

The objective of a central bank is to stabilize macro-inflation without distorting the efficient adjustment in relative prices. For this reason, it is essential for the monetary authority to correctly identify these two types of shocks.

One possible way to detect macro-inflation is with core inflation, which usually is measured by excluding a subset of goods that make up the CPI basket. Another way of approaching core inflation is to use a dynamic stochastic general equilibrium model to determine the different sources of price fluctuations in the economy, differentiating between specific shocks and generalized shocks.

A model for a closed economy is used in this analysis. It is calibrated and estimated to replicate the momentum in the main macroeconomic variables of the Colombian economy. The model consists of four equations that describe the momentum in surplus demand for goods in the economy, the monetary policy decision taken by the central bank, inflation excluding unprocessed foods, and unprocessed food inflation.

Graph B3.1
Supply Shock, Core Inflation and Non-processed Food Inflation



Source: DANE and Banco de la República

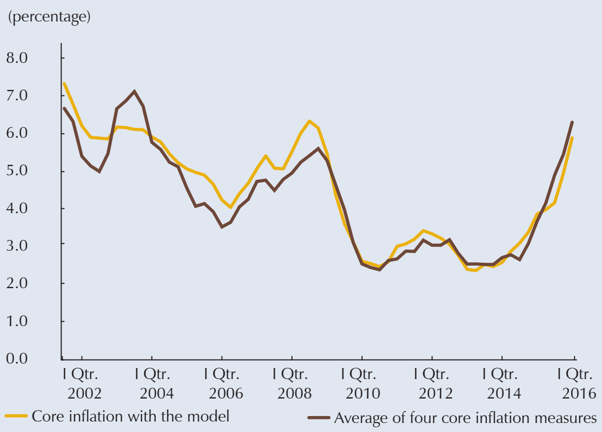
The Phillips curve, in particular, relates surplus demand for goods to inflation excluding unprocessed foods. Additionally, this curve contains elements that are exogenous to the model and have a direct and temporary effect on inflation excluding unprocessed foods. These elements are represented by a supply shock. Graph B3.1 shows the contribution of the supply shock to the performance of inflation excluding unprocessed foods.

It is important to highlight the effect this shock had on inflation during 2015. Thus, core inflation calculated with the model is inflation that subtracts the contemporary supply shocks from inflation excluding unprocessed food, as it sterilizes the latter from any kind movement that is not considered, either from excess demand or inflation expectations.

Graph B3.2 shows a comparison between the proposed measure of core inflation and the average of the four measures of core inflation, based on the exclusion of goods, observed and calculated by Banco de la República. As one can see, according to the model used, it is possible that some of the measures of core inflation now being used are overestimating actual macro-inflation.

* The authors are experts who work with the Macroeconomic Model Department at Banco de la República. The comments and opinions in this section are solely their responsibility and imply no commitment on the part of Banco de la República or its Board of Directors.

Graph B3.2
Core Inflation with the Model and Other Measures of Core Inflation



Source: Banco de la República.

V. Risks to macroeconomic stability

Recent weeks have seen less deterioration in some of the external variables that are relevant for the country. However, it is uncertain whether this improvement will continue during the remainder of the year. In addition, external demand remains weak and the decline in national income is still significant.

The latest figures point to a continued slowdown in borrowing and home prices.

The country's macroeconomic stability requires an adjustment in spending that is consistent with the drop in national income.

The decline observed since mid-2014 in some of the external variables that are relevant for the country slowed in recent weeks. Specifically, the international price of oil recovered the ground it lost in the early months of 2016, the peso gained strength, and measures of the risk premium declined. The emerging economies again received foreign portfolio flows (according to the International Finance Institute), as was also the case in Colombia.[7] Likewise, it is now estimated that the increase in the cost of global financing may occur at a slower pace than was predicted in the previous report. This is because monetary policy in the United States might return to normal more slowly than was expected three months ago. Also, the stance adopted by other central banks in developed economies is still quite expansionary.

Despite higher prices for oil and improvements in the overall outlook for the cost of financing, the registered and projected decline in revenue from foreign trade remains significant. Indeed, the price of crude oil is still below the average on record for 2015, and less oil production is anticipated for this year. Similarly, as noted in Chapter I, external demand remains weak and, therefore, the dollar value of exports other than commodities

7 According to the exchange balance, around USD 1,166 m had come into the country by April 15, 2016. While these capital flows refer only to the entry and exit of foreign currency, and do not correspond exactly to what is recorded in the balance of payments, they do provide information about the trend.

The international price of oil has recovered since February 2016, the peso has gained strength and the country's risk premiums have declined.

is likely to be less in 2016. In addition, Colombia's terms of trade remain low and are well below the average observed for the last ten years.

With respect to the sources and cost of external funding, international liquidity is expected to remain plentiful, but the country risk premium is still high compared to the average for 2015. Therefore, deterioration of financing conditions cannot be ruled out. In this regard, the rating agencies issued several indications during the first quarter about the country's external vulnerability, the urgency of taking steps to reduce its fiscal deficit in the short term, and the need to increase the capital of financial institutions.[8] Yet, despite these comments, new inflows of foreign capital for portfolio investment have been observed, as has a decline in investment in oil and mining. In this context, the Colombian economy likely will continue to have enough external financing to cover the current account deficit, but with more volatile capital, such as that directed towards portfolio investment. And, this funding would be more costly than in recent years.

Although the Colombian economy continues to adjust to the external shocks in an orderly manner, spending still exceeds income, as illustrated by the large current account deficit (both observed and projected). This deficit would remain at record highs, even if oil prices continue at the current levels for the remainder of the year. Likewise, if agents perceive the increase in oil prices as permanent and it turns out to be temporary, this would delay the required adjustment in spending and increase the risk of future abrupt corrections in the level of output in response to less and more costly external financing.

This chapter looks at the current account deficit, the real exchange rate, indebtedness and housing prices, which are the variables citied in the literature as being key to identifying potential sources of vulnerability. An aggregate indicator – the macroeconomic imbalance index (MII) – is included as well. It combines all the imbalances estimated for these variables.[9]

A. THE CURRENT ACCOUNT AND THE REAL EXCHANGE RATE

Achieving a smooth and orderly adjustment in the current account is one of the challenges Colombia faces in the coming years. As mentioned in Chapter I of this report, the current account deficit closed at 6.5% of GDP

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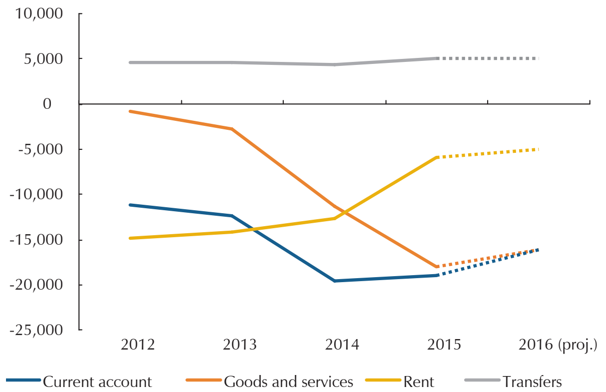
8 The press releases are available at: https://www.standardandpoors.com/es_LA/delegate/getPDF?articleId=1579255&type=NEWS&sub Type=RATING_ACTION https://www.standardandpoors.com/es_LA/delegate/getPDF?articleId=1579623&type=NEWS&sub Type=RATING_ACTION, https://www.moodys.com/research/Moodys-lowers-Banco-de-Bogotas-standalone-assessmentdowngrades-its-subordinated--PR_345114, https://www.fitchratings.com/site/fitch-home/pressrelease?id=1003557.

9 See Arteaga, Huertas y Olarte (2012). "Índice de desbalance macroeconómico," Borradores de Economía, no. 744, Banco de la República.

Graph 52
Main Items in the Balance of Payments

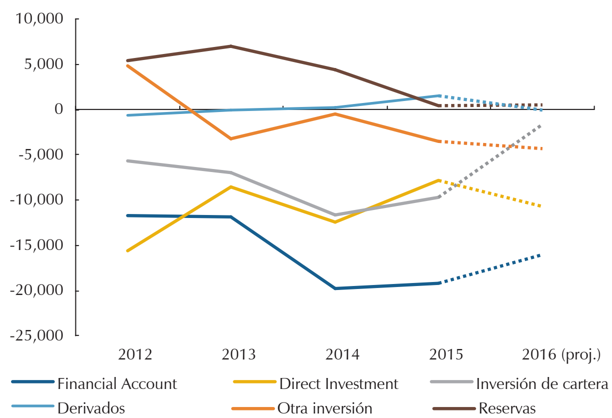
A. Current Account

(Millions of dollars)



B. Financial Account

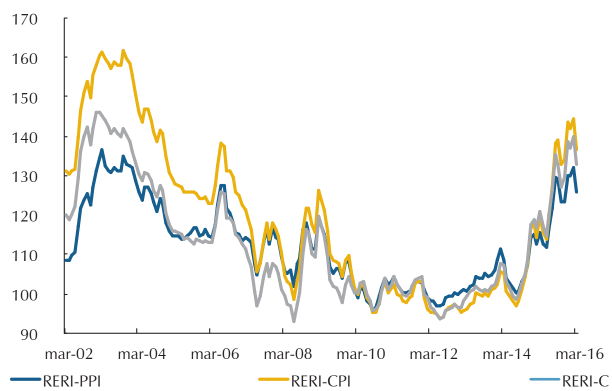
(Millions of dollars)



Source: Banco de la República (Balance of Payments)

Graph 53
Real Exchange Rate Indexes

(2010 = 100)



Observation: The RERI -PPI and the RERI-CPI compare the purchasing power of the Colombian peso to the currencies of the country's major trading partners, using the PPI and CPI as deflators, in that order. With the RERI-C for competitiveness, the comparison is to our main competitors in the United States, specifically in the markets for coffee, bananas, flowers and textiles.
Sources: Banco de la República

in 2015, which is more than the deficit observed in 2014 (5.2% of GDP). This increase is due to the effect of peso depreciation against the dollar (37.2% in nominal terms), which reduced GDP when expressed in that currency. In terms of levels, the external imbalance was USD 668 m less than in 2014 (Graph 52). The deficit and peso depreciation placed the country's international investment position at USD -128.548 b, which is equivalent to -44.0% of GDP (compared to -31.0% of GDP in 2014).

On the financing side, there was less direct and portfolio investment in 2015, coupled with an increase in loans (other investment). Excluding the accumulation of international reserves by Banco de la República and compared to 2014,[10] the funding the country received declined by USD 4,656 m. Yet, despite this significant drop in financing, Colombia has not been confronted with a sudden stop in capital flows.

Nominal and real depreciation of the peso in 2015 was accelerated and sizeable. Compared to the currencies of country's major trading partners, the Colombian peso weakened 13.7% in real terms, if the PPI is used as a deflator (RERI-PPI), and 22.5% if the CPI (RERI-CPI) is used. Against our major competitors in terms of coffee, bananas, flowers and textiles in the United States, the peso depreciated 19.3% in real terms (RERI-C) (Graph 53).[11] This trend towards depreciation continued during the first two months of 2016, but the peso gained strength in March, in real terms, and returned to levels similar to those witnessed in the third quarter of 2015.

Despite the sharp depreciation of the peso, the records for 2015 show the external balance began a slow correction process, which should increase in the years ahead. The current account

10 Capital inflows increased significantly due to the restructuring of public debt ratios in the JP Morgan emerging markets bond index.

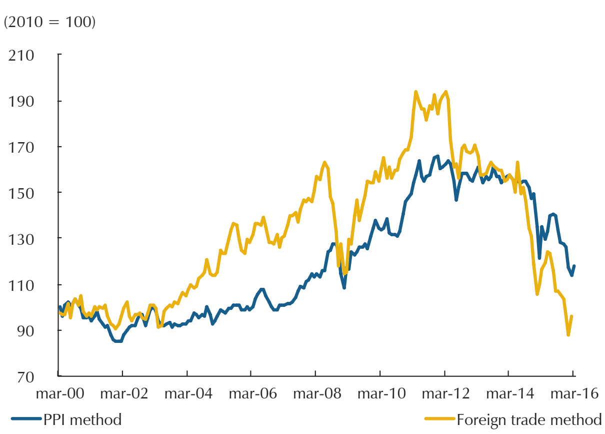
11 Values calculated as the percentage change in the average RERI in 2015 as opposed to the average in 2014.

deficit is expected to close out 2016 at 5.9% of GDP. This is the most likely scenario and implies a reduction of almost USD 3 billion, mainly because of fewer imports of goods and, to a lesser extent, a decline in the amount of profits remitted abroad (Graph 52). On the financing side, a reduction in foreign portfolio investment is anticipated, as is an increase in other investment (loans and others).

This forecast for the balance of payments includes, as temporary elements, several changes witnessed in external conditions in recent weeks. Specifically, oil prices have increased (to an average of USD $45 per barrel for benchmark Brent) and risk premiums have declined, while the peso has gained strength (in nominal and real terms). In addition, the Federal Reserve has signaled its intention to normalize US monetary policy more slowly than expected, and Colombia - like other emerging markets – is receiving capital resources again for portfolio investment.

While the decline in national income has slowed, it is uncertain if this improvement will continue throughout the remainder of the year. Moreover, external demand remains weak and the country's terms of trade are still the lowest they have been in the last 10 years (Graph 54). Even if international liquidity remains plentiful, the deterioration in external revenue compared to what it was in past years, coupled with the Colombian economy's increased debt position and the weak demand from our trading partners, should make access to external financing less favorable than in the past.

Graph 54
Terms of Trade



Source: Banco de la República.

For the sake of the country's macroeconomic stability, spending must be adjusted in a way that is consistent with the decline in national revenue and conducive to an orderly correction in the current account deficit. If an adjustment in spending is postponed for an extended period of time, the country would accumulate more and more foreign liabilities, and would be more vulnerable to adverse shocks.

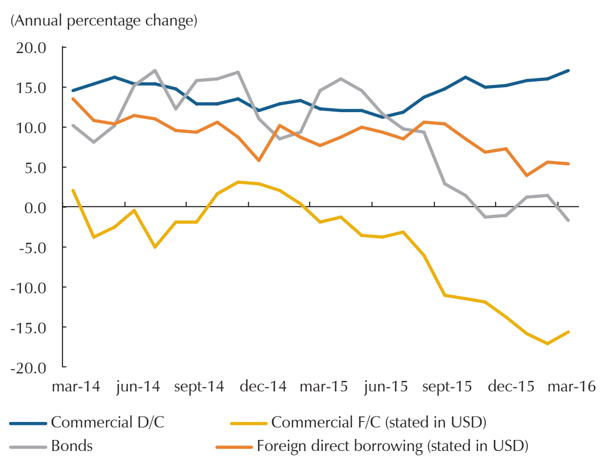
B. INDEBTEDNESS

The trends registered in the second half of 2015 for the different components of private sector borrowing continued during the first quarter of 2016. On the one hand, loans in foreign currency to companies fell (bank loans declined, while direct foreign borrowing slowed), bond placement was at a standstill, and somewhat more growth was registered in the banking portfolio in domestic currency. On the other, consumer lending to households slowed gradually, while the mortgage portfolio continued to increase by between 14.0% and 15.0% (Graph 55).

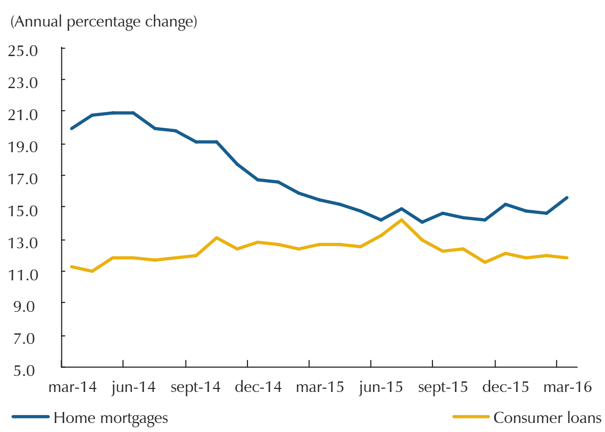
While several indicators presented in the previous chapters suggest the momentum in the economy during the first quarter was similar to what was observed in the latter part of 2015, the March edition of the Survey on Credit in Colombia shows financial intermediaries perceived less demand for loans of all types. The mortgage portfolio was the exception, with subsidized interest rates available to some segments for the purchase of new homes.[12] The same survey also showed intermediaries expect conditions for granting new loans to be tougher in the short term. This is consistent with a less favorable economic environment than in the past and with a historically high level of indebtedness, both for families and businesses. In addition, the rating agencies have issued a call to banks and the financial system in general concerning the impact peso depreciation has had on the capital of some entities, the make-up of their capital and the effect current macroeconomic conditions can have on their balance sheets. This should lead to some moderation in lending policy.

Graph 55
Corporate and Household Borrowing

A. Companies



B. Households



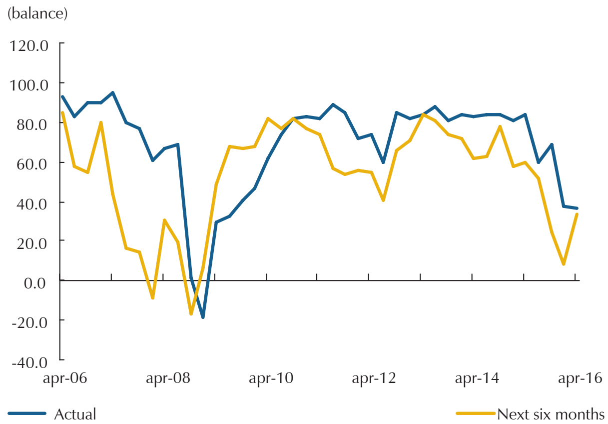
Note: This includes the loan portfolio of credit institutions, mortgage securitizations, bonds issued on the local market by the non-financial sector and foreign direct borrowing. It does not include the portfolio of entities supervised by either the Financial Superintendence of Colombia or the Fondo Nacional de Ahorro. The portfolio held by these entities at June 2015 is estimated at approximately 2.5% of GDP.
Sources: Financial Superintendence of Colombia and the Colombia Stock Exchange; calculations by Banco de la República

In terms of the demand for credit, the Quarterly Survey of Economic Expectations conducted by Banco de la República indicates those surveyed (businessmen, academics, consultants and members of labor unions) perceive a significant decline in the current availability of credit and expect this situation to continue during the next six months (Graph 56).

In addition to affecting the investment plans of some companies, the slowdown in the amount of growth forecast for domestic demand, could reduce willingness to contract more financing and the ability to access it. The deterioration in the job market in recent months, the decline in consumer confidence and rising inflation are negative factors that can continue to have an impact on the demand for household credit. Also, the financial burden on families can increase, insofar as the policy rate hike is passed through to lending rates.

12 Specifically, the My House Now Program covers low-income housing (LIH) priced between 70 and 135 times the minimum monthly wage and non-LIH priced at 135 to 335 times the minimum monthly wage.

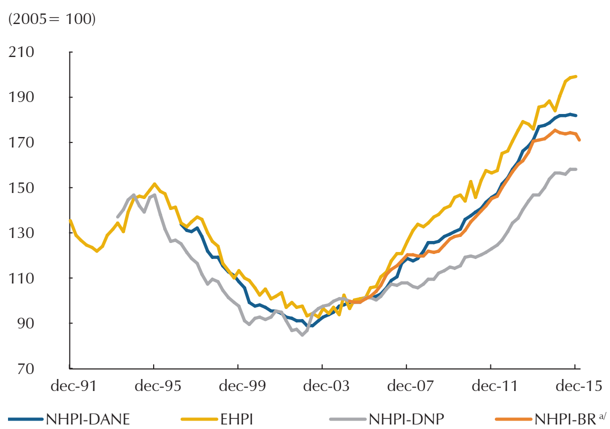
Graph 56
Perception of Current Availability of Credit and in the Next Six Months



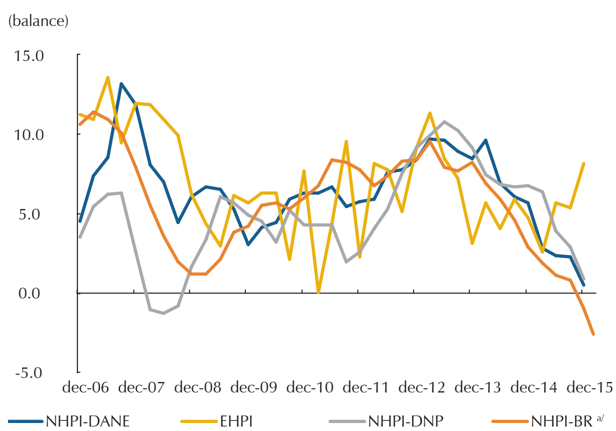
Source: Banco de la República (Quarterly survey of economic expectations)

Graph 57
Home Prices in Colombia (Relative to the CPI)

A. Indexes



B. Annual variation



a/ The data for the NHPI-DANE, the EHPI and the NHPI-DNP is up to the fourth quarter of 2015. The latest data for the NHPI-BR pertains to the quarter from December 2015 to February 2016.
Sources: DANE, DNP and Banco de la República

C. HOME PRICES

The price indexes for new homes have slowed in the past two years and this trend continued up to the fourth quarter of 2015. The index calculated by DANE (NHPI-DANE) saw an annual change of 0.5% relative to the CPI, the DNP index (VNPI-DNP) 0.9%, and Banco de la República (NHPI-BR) - 0.9% (-2.6% for the quarter from December 2015 to February 2016). In contrast, the price index for existing homes accelerated, with a variation of 8.1% above the CPI (Graph 57).

On the financing side, there were reductions in direct and portfolio investment in 2015, and an increase in loans (other investments). Excluding the accumulation of international reserves by Banco de la República and compared to 201413, the amount of funding the country received declined by USD 4,656 m. Yet, despite this significant reduction, the Colombia has not been confronted with a sudden stop in capital flows, as illustrated by the metric presented in Box 4.

The remainder of 2016 can expect to see the moderate growth in property prices continue. As mentioned in previous chapters, the economy must follow a process of adjustment, which may have a negative impact on the job market and on conditions for access to financing by families, in spite of government stimulus for home purchases. Similarly, the observed and forecast increase in interest rates and agents' possible preference for foreign assets may have a negative effect on the housing market.

D. THE MACROECONOMIC IMBALANCE INDEX (MII)

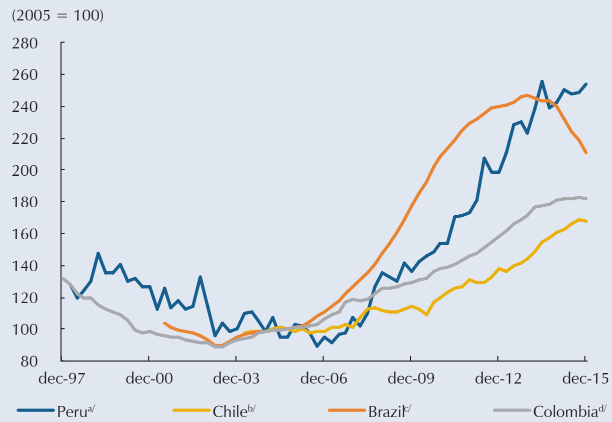
According to the information presented in the previous sections, the figures at hand point to a moderate adjustment in the current account deficit during 2016 (although it still will be high), less real depreciation than in 2015, and somewhat of a slowdown in borrowing and in home prices.

HOW HOME PRICES HAVE EVOLVED IN SEVERAL LATIN AMERICAN COUNTRIES

According to the IMF,[1] more countries saw home prices rise during 2015 (in real terms) than those where home prices declined. As for the countries in the Latin American region, home prices increased in Chile, Peru and Colombia, although at lesser rate than in previous years (Graph A). Home prices in Chile rose 4.4% in real terms, according to the Chilean Chamber of Construction; in Peru, they were up by 4.8%, according to the Central Bank of Peru (following respective increases of 10.7% and 9.3%, on average, in 2014). In Brazil, however, the trend data published by that country's central bank show seven months of declines in nominal terms (-3.2% in December 2015), and eighteen months in real terms (relative to the CPI).

Peru and Chile, like Colombia, have maintained positive increases in output in recent years and low unemployment rates, despite the serious shock to their terms of trade and the decline in consumer confidence (which was less pronounced in the case of Peru). Also, mortgage interest rates in these three countries have not increased, in real terms. In Chile, however, it is possible that part of the rise in prices observed last year was due to the value added tax (VAT) on real estate sales, which took effect in January 2016.[2] According to statistics from the Chilean Chamber of Construction, new home sales in the Greater Santiago market accelerated sharply in 2015 (up 26.8% for the year compared to -6.7% in 2014), particularly during the second six months. In Brazil, however, the drop in output and the deterioration in the job market have been considerable, and the housing market has seen home sales decline (in units), in addition to a correction in prices.

Graph A
Home Price Indexes for Several Latin American Countries (Real)

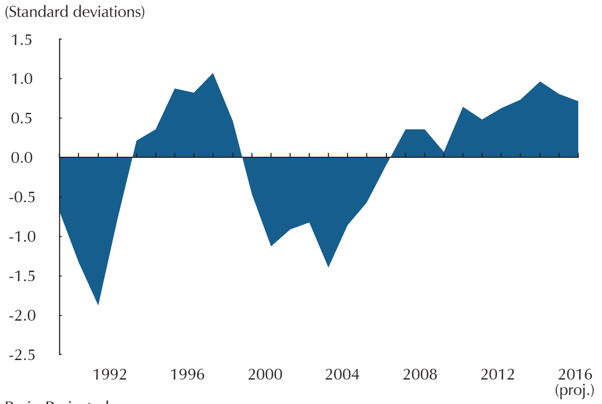


a/ The price index per square meter, in constant soles, in the provinces of La Molina, Miraflores, San Borja, San Isidro and Surco.
b/ The price index for new homes in Greater Santiago, in "unidades de fomento" (developmental monetary units).
c/ The index of the long-term trend in real estate. The CPI was used as a deflator.
d/ Pertains to the NHPI-DANE. The CPI was used as a deflator. Source: DANE; calculations by Banco de la República.
Sources: Banco Central de Reserva del Perú, Cámara Chilena de la Construcción, Banco Central de Brasil and DANE; calculations by Banco de la República

1 See Global Housing Watch, April 2016 http://www.imf. org/external/research/housing/report/pdf/0416.pdf

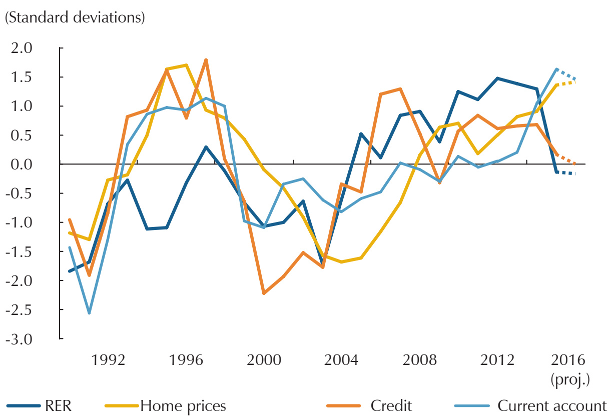
2 The tax reform bill passed in 2014 introduced a valued added tax (VAT) on real estate sales as of 1 January 2016, provided they are made by a so-called regular seller; that is, by a person or entity engaged in the real estate business.

Graph 58
Macroeconomic Imbalance Index



Proj.: Projected
Source: Banco de la República

Graph 59
Gaps in the Current Account, Real Exchange Rate, Home Prices and Credit[a/]



(Proj.) Projected
a / The gaps are calculated as the difference between the observed value and the estimated long-term value.
In the case of the RER, its negative is presented. This means positive gaps, in all cases, indicate imbalances.
Source: Banco de la República

In this scenario, the estimates developed by Banco de la República indicate the accumulated imbalances in the economy would continue to adjust, smoother than compared to what was calculated for 2015 (Graph 58), given the anticipated moderation in credit growth and the amount of real depreciation forecast for 2016 as a whole. The high current account deficit and historically high home prices would help to keep up the value of the MII (Graph 59).

The latest forecasts by domestic and foreign analysts for the major economic variables in 2016 and 2017 are summarized in this section. At the time they were consulted, the analysts had access to data up to April 26, 2016.

BOX 4
SUDDEN STOPS IN CAPITAL FLOWS: THE COLOMBIAN CASE

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and Adrian Martinez Osorio *

1. Introduction

In an ever more globalized world, capital flows emerge as a viable alternative for investors who are seeking higher yields and for economies that are short on savings and looking for resources to finance their current expenditure or investments.[1]

Capital flows depend on international financial conditions, such as foreign interest rates and risk perception, as well as the characteristics of the recipient economies.[2] For that reason, although a country's financing needs might not change, inflows of capital from abroad can stop suddenly, with serious consequences for aggregate demand, employment and the financial stability of companies, the government and households.[3] This phenomenon is referred to in the specialized literature as a sudden stop.

For the past fourteen years, the Colombian economy has seen its current account deficit increase from around 1.0% of GDP to 6.5% in 2015. This indicates the country is spending more money than it has in terms of disposable national revenue and has resorted to foreign savings to finance this external imbalance.

The boom in capital flows occurred at a time when there was a clear trend toward peso appreciation, both in nominal and real terms, followed by depreciation of the peso[4] in a context of lower international prices for raw materials, expectations that the Federal Reserve would raise its policy rate in the United States, and slower economic growth in Latin America and Colombia. All of this shows potential external vulnerability. Thus, if the current account deficit is not corrected and flows of external financing come to a sudden stop, this would imply a sharp reduction in aggregate demand, which would affect economic growth.

This section presents an adaptation of the method proposed by Cavallo et al. (2013) to identify sudden stops in foreign capital flows and the results for the Colombian case in the period from 1996 to 2015.

2. Method for Identifying Sudden Stops

Liability flows in the financial account of the balance of payments, attributed to foreign direct investment (FDI), portfolio investment (PI) and other investment (OI), are regarded as Inflows of foreign capital. Asset flows from direct investment (DI), PI and OI are regarded as outflows of domestic capital. Net capital flows are understood as the difference between liability and asset flows in the financial account of the balance of payments (inflow-outflow).

According to the foregoing, and as suggested by Cavallo et al. (2013), sudden stops can be caused by different kinds of behavior (see the attachment for details); namely,

> Reductions in inflows of foreign capital to the host country or increases in outflows of foreign capital invested previously in the host country.

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1 Lane and Milesi-Ferrati (2007) argue that financial integration had grown seven-fold, from 45.0% in 1970 to 300% in 2004, as a result of an increased in the debtor and creditor positions of countries.

2 These phenomena are referred to in the literature on capital flows as push factors, which that arise arising from the global supply of capital, and pull factors, which emerge from the host economy. See Dornbush et al. (1995), Calvo and Reinhart (2000) and Calvo, Izquierdo and Mejia (2004).

3 According to Cavallo et al. (2013), the sudden stops originating with reduced inflows of foreign capital are associated with contractions in real GDP that are between 1.5% and 3.3%.

4 According to the literature, a crisis caused by a sudden stop in capital flows is preceded by gradual and profound appreciation of the nominal and real exchange rate, subsequent depreciation of the nominal exchange rate that is passed through to the real exchange rate and prices, deterioration in the debtor position of the economies in question, and a boom in capital flows. See Dornbusch et al. (1995) and Reinhart and Reinhart (2008). For the Colombian case, during the boom period for financial flows (2004-2012), the nominal exchange rate appreciated 25.6%; it depreciated 67.8% between 2013 and 2015.

An increase in outflows of capital from national residents for investment abroad or reductions in inflows of capital they have invested in other countries.

A reduction in net capital flows resulting from less inflow of foreign capital and more outflows of capital from residents.

Our identification of episodes of sudden stops takes into account the method proposed by Cavallo et al. (2013):

1. The quarterly figures are accumulated to avoid seasonality. Accordingly, each figure includes observations from the last four quarters:

$$F_{t,j} = \sum_{i=0}^{3} X_{t-i,j}$$

Where *j* refers to asset, liability and/or net flows; $F_{t,j}$ is the value of the accumulated flow and $X_{t,j}$ is the value of the flow (gross or net) as it appears in the financial account in the balance of payments.

2. The annual change in each series is calculated: $\Delta F_{t,j} = F_t - F_{t-4}$

3. The average and the standard deviation $\Delta F_{t,j}$ are calculated for each of the series.

4. A sudden stop is identified pursuant to the algorithm described in Calvo, Izquierdo and Mejia (2004):

a. *Start*: when the annual change in each accumulated flow is lower (higher) than the average, minus (plus) a standard deviation for liability (asset) flows.

b. *Confirmation*: when the annual change in each accumulated flow ($\Delta F_{t,j}$) is (higher) lower than the average, minus (plus) two standard deviations for liability (asset) flows.

c. *End*: when the annual change in each accumulated flow returns to the average, minus (plus) a standard deviation for the liability (asset) flows.

The period examined in this section covers the years from 1996 through 2015 and is based on the capital flows registered in the financial account of the balance of payments. Specific operations that bias the average calculations[5] are excluded, so as to identify the occurrence of sudden stops in Colombia.

It is important to point out that the Colombian economy has undergone major changes in the structure and level of its productive activities during the past twenty years. The extent of capital flows in recent years has been much higher than at the beginning of the period in question. These flows increased fourfold between 1996 and 2014, while outflows of Colombian capital in 2014 were six times higher than in 1996. A similar pattern is observed in the flow of the country's foreign trade, which increased fivefold during the same period. In addition, Colombia's financial system is now more solid than it was in the late twentieth century, and monetary policy is managed very differently than it was in the 1990s.

This being the case, assuming that annual changes in capital flows at the beginning and end of the series are equivalent ignores the transformation of the Colombian economy and does not appear to be the most suitable approach to our analysis. Accordingly, if the method proposed by Cavallo et al. (2013) were to be applied, the results would be biased, because they do not consider the existence of a trend in the data, which is characteristic of a growing economy. Thus, for a more appropriate scale, each detail in the series identifies the flow of capital for the quarter expressed as a percentage of the trend in GDP. The scale of capital flows is constructed based on the trend in GDP and not its level, so as to offset the effect of existing valuation when expressing nominal GDP in dollars.

Specifically, each quarterly detail from the financial account in balance of payments Xt, j is divided by the value of the trend in nominal GDP in dollars in quarter t. Then, the quarterly data are accumulated and the aforementioned method is followed identically.

3. Results: Sudden Stops in Colombia

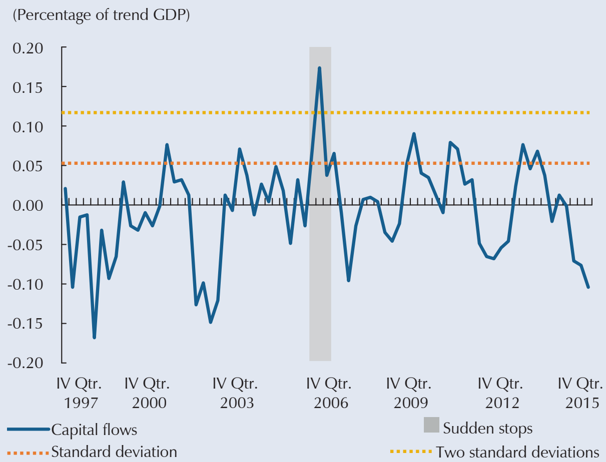
Graph B4.1 shows the changes in capital flows (asset, liability and net) for the Colombian case, calculated as outlined in the previous section. The shaded areas pertain to episodes of a sudden stop, according to the proposed method.

The panel in Graph B4.1 shows a sudden surge in outflows of capital that began in the second quarter of 2006 and ended in the fourth quarter of that same year. It pertains to an increase in the constitution of foreign assets on the part of pension funds. Since that year, foreign investments made by these entities have increased

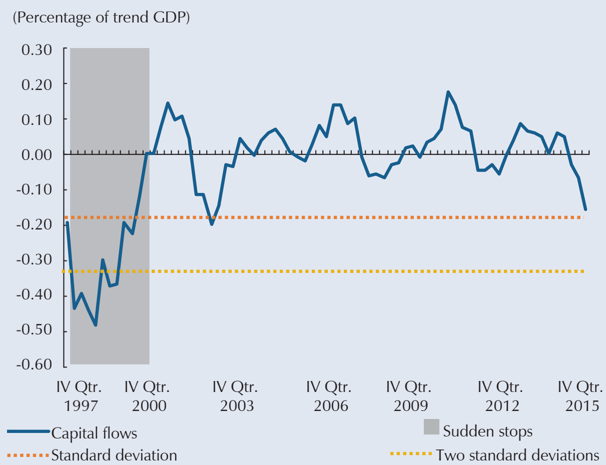
5 Outflows of Colombian capital associated with the sale of companies in the real sector (2005), the acquisition of pension funds in Latin America (2011), and acquisitions made by the financial sector in Central and South America (2013) are eliminated in the case of asset flows. The payment of a particular external debt operation (2013) is excluded in the case of liability flows.

Graph B4.1
Sudden Stops in Capital Flows: Results Scaled by Size of the Economy

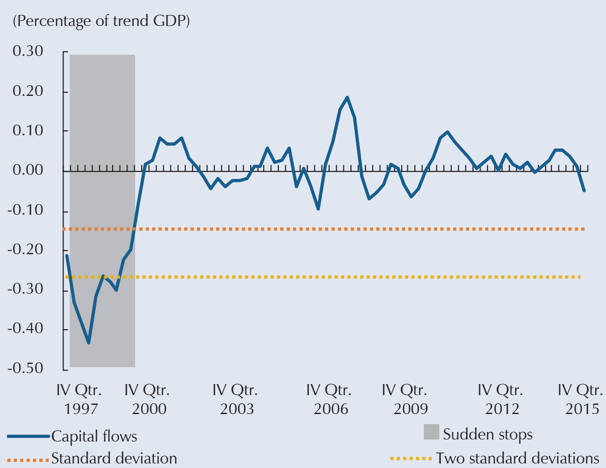
A. Annual Change in Asset Flows



B. Annual Change in Liability Flows



C. Annual Change in Net Flows



a/ The gaps are calculated as the difference between the observed value and the estimated long-term value. In the case of the RER, its negative is presented. This means positive gaps, in all cases, indicate imbalances.
Source: Banco de la República

steadily to the point where they account for nearly 35.0% of all Colombian assets in the rest of the world.

Panel B shows the results for liability capital flows. There is a sudden stop in foreign capital inflows beginning in the final quarter of 1997 and lasting up to the third quarter of 2000. It coincides with the financial crisis the country faced during 1998-1999, which was the most severe on record. Accordingly, the decline in liability capital flows at the end of the nineties can be regarded as a sharp contraction, given the characteristics of the Colombian economy during that period.

Although inflows of foreign capital declined because of reduced inflows of FDI and portfolio investment during 2015, the reductions have not been pronounced enough, at least so far, to be able to say that gross liability flows in the financial account came to a sudden stop.

Lastly, Panel C shows two important facts. First, the reduction in liability capital flows in the late nineties was sharp enough to affect net capital flows and to cause them to stop suddenly. Secondly, the decline in formation of assets abroad partly offset the reduction in inflows of foreign capital during 2015, since the contraction in net capital flows is less than the contraction in gross liability flows.

4. Conclusions

It is important to monitor the behavior of financial flows in and out of the country, be they asset, liability or net flows, so as to identify warning signs that allow for a timely reaction to any tightening in external funding. A sudden stop in foreign capital flows for an economy with a current account deficit, such as Colombia, can prompt sharp adjustments in aggregate demand, in employment and in the financial stability of companies, the government and households.

In applying the method suggested by Cavallo et al. (2013) to the Colombian case, and taking into account the size of the economy, we have identified a surge in outflows of Colombian capital during 2006 and a sudden stop in gross liability flows in 1998-2000 that was strong enough to provoke a sudden stop in net flows during the same period, which is also consistent with the momentum in growth and employment.

Moreover, although inflows of foreign capital declined in 2015 because of reduced inflows for FDI and portfolio investment, these cutbacks have not been pronounced enough, at least so far, to classify as a sudden stop in capital.

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Attachment

Pursuant to the considerations in Cavallo et al. (2013) on the importance of reviewing capital flows in gross and net terms, seven types of possible sudden stops can be defined (Table B4.1).

Table B4.1
Types of Sudden Stops

A. Episodes that affect net flows		
Liability Flows		Net
Sudden stop ↓	Sudden increase ↑	Sudden stop ↓
Sudden stop ↓	No changes →	Sudden stop ↓
No changes →	Sudden increase ↑	Sudden stop ↓
Slight reduction	Slight increase	Sudden stop ↓
B. Episodes that do not affect net flows		
Liability Flows	Asset Flows	Net
Sudden stop ↓	Reduction	Slight reduction
Increase	Sudden increase ↑	Slight reduction
Increase	Reduction	Slight reduction

Source: Based on Cavallo *et al*. (2013).

Attachment

Macroeconomic forecasts by domestic and foreign analysts

1. Forecasts for 2016

The domestic analysts expect 2.49% economic growth, on average. This is 8 basis points less than was estimated in the Inflation Report for the previous quarter. The foreign analysts who were consulted are forecasting 2.30% GDP growth, on average.

As for prices, the domestic analysts estimate inflation at 6.09% and foreign analysts expect it to be 5.80% by the end of the year. Both forecasts are outside the target range set by the Board of Directors of Banco de la República (JDBR) for 2016 (between 2.0% and 4.0%).

Table A1
Forecasts for 2016

	Real GDP Growth (Percentage)	CPI Inflation (Percentage)	Nominal exchange rate end of:	Nominal fixed-term deposit rate (Percentage)	Fiscal deficit (Percentage of GDP)	Unemployment Rate in the Thirteen Major Metropolitan Areas (Percentage)
Domestic Analysts						
Alianza Valores[a/]	2.00	7.12	3,600	7.00	3.90	13.20
ANIF	2.50	6.20	n.d	7.20	3.40	9.20
Banco de Bogotá	3.00	5.80	3,050	7.32	3.60	9.50
Bancolombia	2.60	5.40	3,250	7.24	3.60	10.30
BBVA Colombia[a/]	2.00	6.20	3,100	7.67	3.90	10.00
BTG Pactual	2.30	5.88	3,260	n. d.	3.60	9.80
Corficolombiana	2.70	5.30	2,750	6.50	3.60	9.30
Corpbanca[b/]	2.50	6.30	3,025	7.32	3.40	11.20
Corredores Davivienda[a/, c/]	2.60	6.80	3,100	6.75	3.60	9.89
Credicorp Capital[d/]	2.30	5.30	2,900	6.50	3.10	10.30
Davivienda[a/]	2.60	6.80	3,100	6.75	3.60	9.89
Fedesarrollo	2.50	6.00	n.d	7.75	4.00	n. d.
Ultraserfinco[e/]	2.80	6.10	2,950	6.70	n.d	9.58
Average	**2.49**	**6.09**	**3,099**	**7.06**	**3.53**	**10.18**
Foreign Analysts						
Citi	2.40	5.00	2,900	6.80	3.60	10.00
Deutsche Bank	2.40	6.20	3,253	n.d.	4.00	9.70
Goldman Sachs	2.20	5.40	3,600	n.d.	3.80	n.d.
JP Morgan	2.20	6.60	3,100	n.d.	3.60	n.d.
Average	**2.30**	**5.80**	**3,213**	**6.80**	**3.75**	**9.85**

n.d. Not available
a/ The projected deficit pertains to the national government.
b/ Formerly Banco Santander
c/ Formerly Corredores Asociados
d/ Formerly Correval
e/ Formerly Ultrabursátiles
Source: Banco de la República (electronic survey)

Table A2
Forecasts for 2017

	Real GDP Growth	CPI Inflation	Nominal Exchange Rate End of:
	(Percentage)		
Domestic Analysts			
Alianza Valores	2.50	5.30	3,800
ANIF	3.40	4.00	n. d.
Banco de Bogotá	3.50	3.50	3,100
Bancolombia	2.90	3.16	3,140
BBVA Colombia	3.00	4.10	2,800
BGT Pactual	3.10	3.70	3,350
Corficolombiana	3.20	3.70	2,500
Corpbanca	3.70	4.08	2,930
Corredores Davivienda [a/]	3.70	4.00	n.d.
Credicorp Capital [b/]	3.20	3.30	2,600
Davivienda	3.70	4.00	n. d.
Fedesarrollo	3.00	4.00	n. d.
Ultraserfinco [c/]	3.20	4.17	2,850
Average	**3.24**	**3.92**	**3,008**
Foreign Analysts			
Citi	3.00	3.70	2,900
Deutsche Bank	3.10	4.00	n. d.
Goldman Sachs	2.70	3.50	3,660
JP Morgan	3.20	n.d	3,200
Average	**3.00**	**3.73**	**3,253**

n.d. Not available
a/ Formerly Banco Santander
b/ Formerly Corredores Asociados
c/ Formerly Correval
Source: Banco de la República (electronic survey)

In terms of the exchange rate, the domestic analysts expect the representative market rate (RMR) to end the year at COP 3,098.64, on average, versus COP 3,146.27 estimated in the survey referred to in the previous report. The foreign analysts anticipate the RMR to be near COP 3,213.25 by the end of the year.

Regarding the interest rate on fixed-term deposits (DTF), the domestic analysts expect it to average 7.06%, which is 112 bp higher than was estimated in edition of this report for the previous quarter. They also anticipate the unemployment rate will be 10.18%.

2. Forecasts for 2017

The domestic analysts forecast 3.24% economic growth in 2017, while the foreign analysts are expecting 3.00%. With regard to inflation, the domestic and foreign analysts are forecasting 3.92% and 3.73%, respectively. As for the nominal exchange rate, the Colombian banks are expecting COP 3,007.78, on average, while the foreign banks are forecasting an average of COP 3,253.33.

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