



INFLATION REPORT

September 2013

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INFLATION REPORT

September 2013*

* Submitted by the Technical Staff for a meeting of the Board of Directors on October 25, 2013.

Banco de la República
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THE INFLATION TARGETING STRATEGY IN COLOMBIA

OBJECTIVES

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

HORIZON AND IMPLEMENTATION

The Board of Directors of *Banco de la República* (the Central Bank of Colombia) (BDBR) sets quantitative inflation targets for the current year and the next. 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 that deviation would not be due to temporary shocks, the BDBR modifies its policy stance. For the most part, this is done by changing the ben-

chmark interest rate (charged by *Banco de la República* on short-term liquidity operations).

COMMUNICATION AND TRANSPARENCY

Decisions on monetary policy are announced after meetings of the Board of Directors. This is done through a press bulletin posted immediately on *Banco de la República's* website (www.banrep.gov.co).

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

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DEVELOPMENTS IN INFLATION AND MONETARY POLICY DECISIONS

The information available up to the third quarter of 2013 shows a global economy that is recovering slowly. The United States economy is growing at a moderate pace and the economy in the euro zone, although weak, shows some signs of improvement. Growth is mixed in the large emerging countries in Asia and Latin America, and most have lower rates of expansion than in 2012. Average growth for our trading partners in 2013 likely will be less than it was last year. However, 2014 is expected see a build-up in external demand, especially due to better performance by the US economy, and positive growth in the euro zone.

The tensions in global financial markets, associated with the eventual tapering of asset purchases by the Federal Reserve of the United States (Fed), waned throughout the quarter. The rise in long-term interest rates as of May was partly reversed. Moreover, the risk premia of the emerging economies in the region declined, currencies showed moderate appreciation, and the prices of financial assets recovered. However, future discussions on the US debt ceiling could spark new financial tensions and have negative repercussions for global confidence, economic growth and risk premia. Also, some volatility in international financial markets related to future monetary actions by the Fed is to be expected.

Terms of trade increased in August and remain at historically high levels, although below the average observed in 2012. Higher international oil prices and the decline in prices for some commodities imported by Colombia explained that recovery. The impulse stemming from terms of trade is expected to lose momentum in 2014.

The performance of Colombian exports in US dollars reflects external demand, which is weak but recovering, and high international oil prices. The average annual growth in exports overall during July and August was 0.9%, following an annual decline of 3.9% in the first half of the year. During those two months, mining exports were up by 5.1% annually; the sector had exhibited an annual decline of 7.4% in the first six months of the year. Agricultural and industrial exports fell in July and August 2013 by 4.9% and 10%, on average, in that order.

GDP growth in Colombia during the second quarter of 2013 was higher than forecast. In terms of domestic demand, both household and government investment and consumption showed added momentum. Similarly, real export growth surpassed the rise in imports for the first time since the second quarter of 2009. On the supply side, with the exception of construction, all sectors of the economy showed more of an increase than during the previous quarter, particularly the agricultural sector. Industry, including coffee processing, grew at a positive rate, after having contracted during three consecutive quarters.

The technical staff at *Banco de la República* forecasts a growth range between 3.8% and 5.4% for the third quarter, with 4.6% being the most likely figure. Economic activity during that period would be driven mainly by investment in construction and buildings. Consumption would grow at a rate similar to the one observed in the first half of 2013, while exports would slow and increase less than imports. On the supply side, the construction sector also would be the main source of growth, followed by agriculture, mining and commerce. However, this period witnessed several strikes that affected production in sectors such as transport and mining.

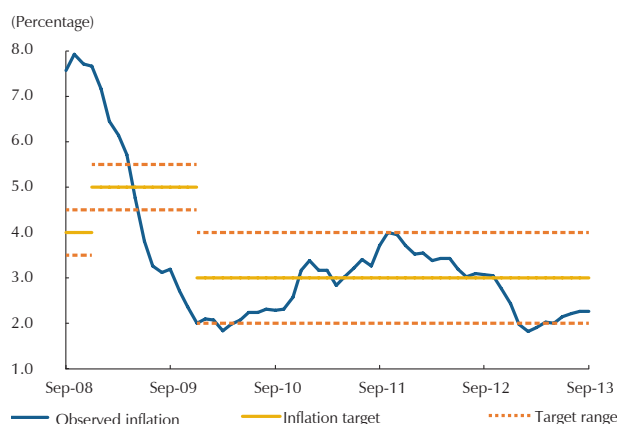
The growth range for 2013 as a whole was set at 3.5% to 4.5%, with the most likely figure being around 4.0%. By 2014, the most likely figure could be higher, somewhere in a range of 3.0% to 5.0%. If these forecasts prove to be correct, the output gap in 2013 would be in slightly negative territory, with a possible closure in 2014.

Growth in overall lending has stabilized at a rate above the increase in nominal GDP estimated for the current year, although its make-up has changed,

partly in response to international events. Large companies have increased their demand for long-term commercial credit in pesos and some have issued bonds, replacing loans in foreign currency. Consumer lending continues to slow and the rate of growth in the mortgage portfolio has risen slightly. All of this was at interest rates that continued to be relatively stable in September and, in real terms, were still below the historical averages calculated since 2000 (excluding credit cards).

As for prices, annual inflation increased somewhat in the third quarter of 2013, from 2.16% in June to 2.27% in September, mainly due to more of a hike in prices for food and the tradable group excluding food and regulated items (Graph A).

Graph A
Total Consumer Inflation



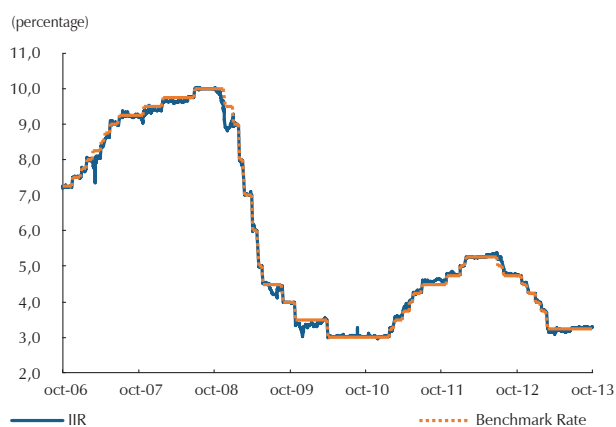
Source: DANE and Banco de la República.

The average of the core inflation measurements remained relatively stable during the quarter and was 2.5% in September.

The output gap estimates suggest little demand-pulled pressures on prices and are coherent with inflation that has risen slowly since March and was below the long-term target (3.0%) in September. The same is true of the average of the four measurements of core inflation. These results have influenced inflation expectations, which are still at around 3.0%.

The forecasts for the end of the year point to a high likelihood that inflation will fall below 3.0%. As for 2014, the monetary policy actions taken to date, which are intended to improve the momentum in aggregate demand, should help inflation to converge towards the long-term target.

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



a/ The figures correspond to data from business days; the last figure is for October 16, 2013. Source: Office of the Financial Superintendent of Colombia and *Banco de la República*.

In summary, economic growth in 2013 can be expected to be similar to last year's, although the downside risks are not negligible and could have increased recently. Inflation continues posting at the lower half of the target range and inflation expectations remain anchored to the long-term target (3.0%). Together with this, interest rates remain at levels that stimulate aggregate expenditure in the economy.

After assessing the risk balance, the Board of Directors considered it appropriate to keep the benchmark interest rate at 3.25% (Graph B) in August, September, and October. Also, in September, the Board decided to adjust *Banco de la República's* international reserves purchase program and to accumulate US \$ 1 billion between October and December of this year.

INFLATION REPORT

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I. THE EXTERNAL CONTEXT AND BALANCE OF PAYMENTS

During the third quarter of the year, global activity continued to recover thanks to a positive contribution from several of the developed economies. Nevertheless, the downside risks increased in recent months.

The added fiscal uncertainty in the United States and the reaction of financial markets to possible tapering of the Fed's monetary stimulus program explain this behavior.

As for 2014, there is still the expectation that Colombia's major trading partners will experience a build-up in economic growth.

A. THE INTERNATIONAL SITUATION

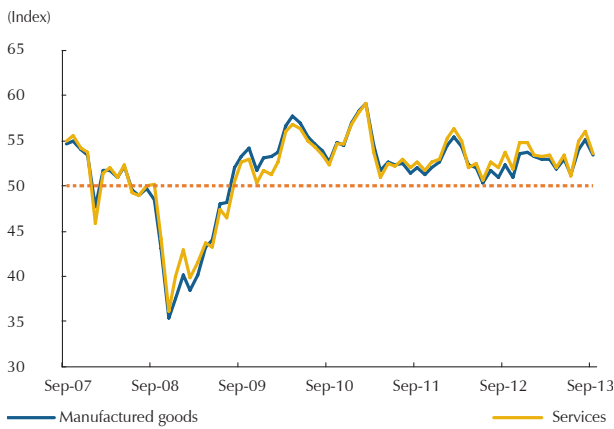
1. Business Activities

In the second quarter of 2013, the increase in gross domestic product (GDP) in the major developed economies surprised on the upside, particularly the quarterly growth in productive activity in the euro zone, which would mark the end of the recession in that region. Although the emerging economies continued to expand at a higher rate than the advanced economies, the pace of that growth slowed once again and would be less than the 2010-2012 average.

The increase in market interest rates in the United States exposed the vulnerability facing some emerging economies.

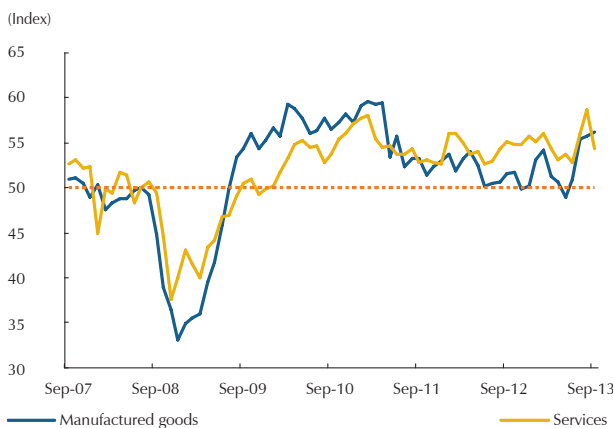
Although the recovery in global activity continued during the third quarter (Graph 1), the downside risks increased in the weeks prior to the publication of this report given the absence of agreements on fiscal issues in the United States. Added to this was the rise in long-term US interest rates due to expectations that the Federal Reserve (Fed) will gradually taper its monetary stimulus. This also revealed the vulnerability that some major emerging economies face with respect to reduced capital inflows (Box 1).

Graph 1
Global Business Activities Indexes
(Purchasing Managers Index: PMI)



Source: Bloomberg

Graph 2
Business Activities Indexes in the United States



Source: Bloomberg.

The United States economy (Graph 2) continued to expand at a moderate pace during the third quarter. The figures up to August show that retail sales and industry grew in both monthly and annual terms. Similarly, in September, the indicators of activity in the manufacturing and service sectors remained in expansionary terrain. This information points to a moderate increase in real productive activity during the third quarter.

Consumer confidence has been affected in recent months by the fear of possible US military intervention in the Middle East and further discussions on the fiscal issue. Should this situation continue, it could undermine the momentum in economic growth via less of an increase in household spending. The foregoing could occur, particularly in the last quarter of the year.

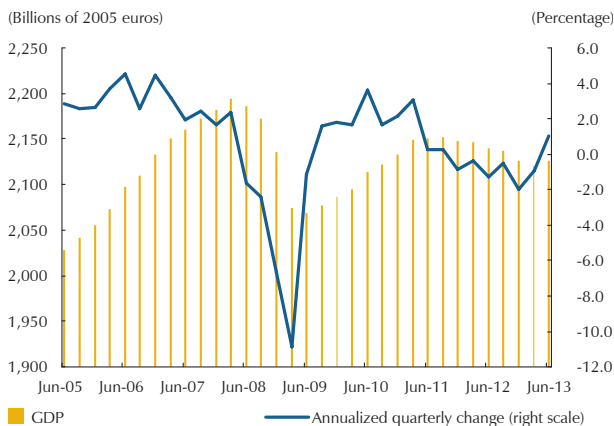
The latest figures show that recovery in the housing market continued, both in terms of prices and quantities. However, recent months witnessed a slowdown in some of the indicators, such as housing starts and permits. This coincided with the increase in long-term market interest rates, following the Fed's announcements that it might begin to ease its monetary stimulus program. Meanwhile, the unemployment rate continued to trend downward, as it has in recent months; however, job creation is still relatively low.

In fact, part of the drop in unemployment is explained by a reduction in the overall participation rate, not by an increase in the number of persons employed.

In early October, the United States Congress failed to reach an agreement on the budget for the fiscal year. The result was a government shutdown that affected the operation of many government agencies for several weeks, including those that generate statistics. The budget discussions coincided with negotiations on the debt ceiling. Finally, on October 16, the US Congress reached an agreement that avoided a default on payments by the economy until at least February 7, 2014 and allowed the government to reopen until January 15, 2014. During this lapse, there should be negotiations to agree on new fiscal adjustments.

Regarding the euro zone, the figures up to the second quarter place annualized quarterly (a.q.) economic growth close to 1.2%, which is somewhat better

Graph 3
Real GDP in the Euro Zone



Source: DataStream

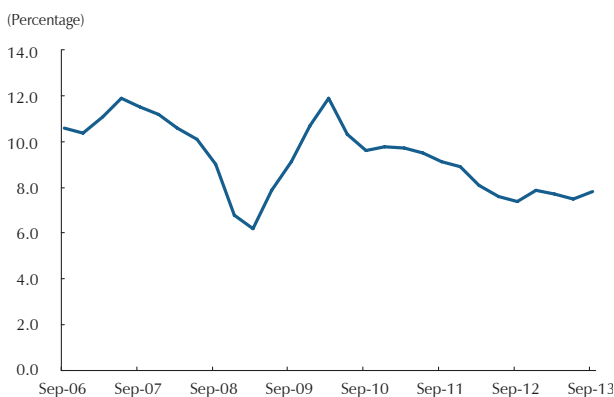
than expected in previous reports and represents a break in the decline in GDP, which completed six quarters (Graph 3). The positive growth in the region is a result of more momentum in economies such as those of Germany and France, which grew by 2.8% a.q. and 2.0%, a.q., respectively, and less deterioration in several peripheral countries such as Spain and Italy. Notably, the Portuguese economy went from a 1.6% a.q. decline in the first quarter to 4.5% a.q. growth in the second.

Preliminary data for the third quarter show that the recovery in economic activity would be ongoing. In this sense, the data through September show business and consumer confidence rates in

the euro zone continued to perform encouragingly, as was also the case with indicators of activity in the manufacturing and service sectors. Similarly, with the figures at August, retail sales completed several months of growth in monthly terms and less of an annual decline. Finally, industrial production in Germany accelerated sharply in August, confirming an expansion in that country's manufacturing activity.

Despite this data, it is important to point out that the European economy remains weak and there are still challenges to be resolved. The unemployment rate remains high (mainly in the economies on the periphery), lending continues to contract, and financial fragmentation is still affecting the region's more vulnerable economies. By the same token, the weakness of the corporate sector could create new problems for sustainability of the financial system, as reported by the International Monetary Fund (IMF) in its latest reports on global outlook and financial stability.

Graph 4
Annual Change in China's Real GDP

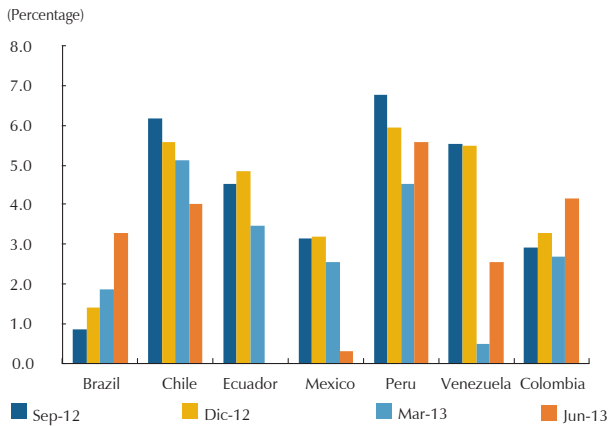


Source: Bloomberg

As for the emerging economies, China's economic growth (Graph 4) picked up slightly in the third quarter, akin to what the market expected. This added growth was reflected in a recovery in domestic demand and industrial activity; similarly, the government implemented several stimulus measures during this period that contributed to the growth in investment. The increased momentum in China would favor other economies in the region.

In the case of Latin America (Graph 5), economic performance during the second quarter of the year was mixed, as has been the case in recent months. Annual GDP growth accelerated in Bra-

Graph 5
Real Annual GDP Growth for Several Latin American Countries



Source: DataStream.

zila, Colombia, Peru and Venezuela between April and June, partly because of a higher number of working days compared to 2012. The increased momentum in external demand from the developed countries was also a factor in this respect. Importantly, the acceleration in the Venezuelan economy surpassed the expectations of analysts and the Bank’s technical staff and led to a revision in growth forecasts for that country compared to those in the June edition of the Inflation Report.

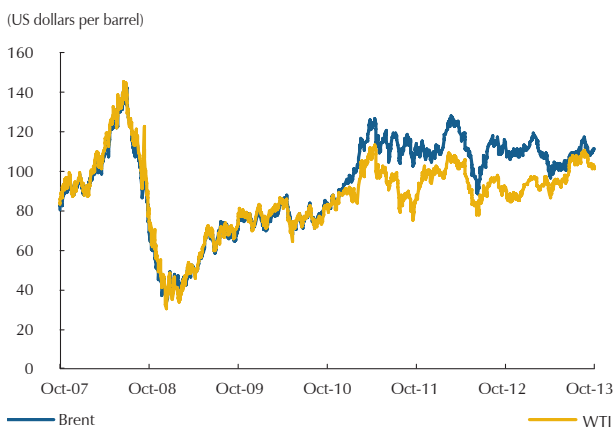
In Chile and Mexico, growth slowed down during the same period. Yet, even so, Chile’s growth rate remained favorable. In the case of Mexico, the sharp slowdown witnessed in that country is

associated with low performance in government spending during a post-election year and low export growth in the construction sector.

Third-quarter preliminary information indicates that the performance of productive activity remains mixed. While the monthly indicators in Peru show some acceleration, growth in Chile appears to have stabilized at 4.5%, which is below its potential. Brazil’s economy seems to be losing momentum, while in Mexico, although the figures for July and August are more encouraging than those for the second quarter, heavy flooding in September would have affected growth during the third quarter. It should be noted that added growth in the developed economies helped to revitalize the region’s foreign trade.

2. Commodity Prices, Inflation, and Monetary Policy

Graph 6
International Oil Prices (Brent and WTI)

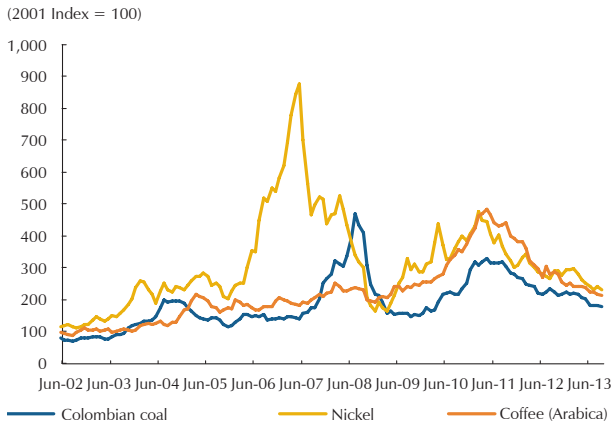


Source: Datastream.

As for international commodity prices, increased geopolitical tensions raised foreign oil prices during the third quarter above the estimations by the Central Bank’s technical staff for the baseline scenario outlined in the June edition of the Inflation Report. Following increases in recent months, the average price of Brent crude per barrel was US\$ 108, which is higher than the forecast: US \$ 105 (Graph 6).

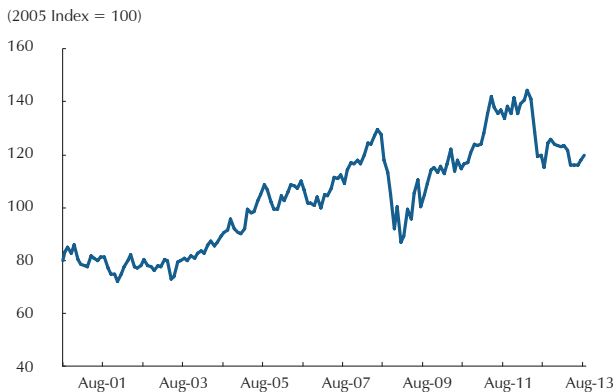
In the case of other goods exported by Colombia such as coal and nickel (Graph 7), the declines witnessed in previous months came to a halt. External coffee prices continued to fall, although at a

Graph 7
International Price Indexes for Coal, Nickel and Coffee



Source: Bloomberg.

Graph 8
Colombian Terms of Trade Index
(Commerce methodology)



Source: DIAN and DANE; calculations by Banco de la República.

slower pace. Favorable supply conditions during the course of the year to date, especially in Brazil, pushed down prices. Meanwhile, the increase in the supply of certain grains and cereals caused their international prices to decline during September and October.

In a context where export prices stopped falling and even increased (as in the case of oil), coupled with a reduction in imports, the Colombia's terms of trade were favored over the previous quarter. However, their average level so far this year is still lower than in 2012 (Graph 8).

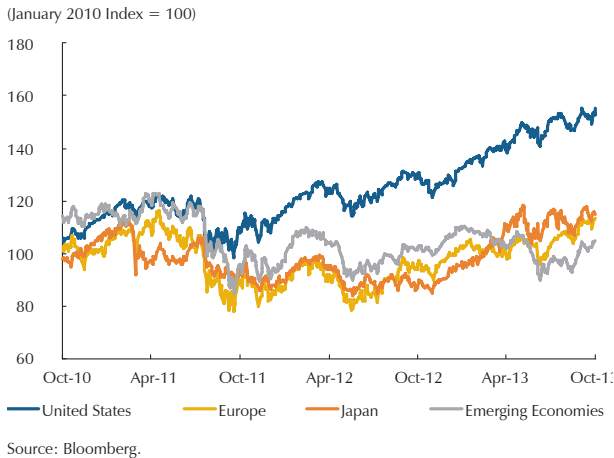
Inflation has remained low and relatively stable in the major developed economies in recent months, enabling various central banks to continue their lax stance. However, the monetary stimulus measures in Japan and the depreciation of its nominal exchange rate would be helping to raise the level of its prices, which completed several years in deflation.

In the United States, the Fed has yet to begin tapering its monetary stimulus program, which is dependent on favorable US economic performance, particularly in that country's job market. According to the latest Fed minutes, the change in monetary stance could begin in late 2013 or early 2014. However, it will depend on the performance

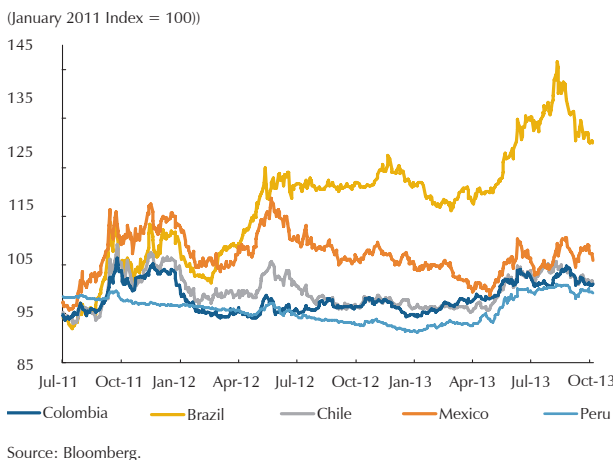
of productive activity in the third quarter and the effects of fiscal uncertainty on production and confidence in the coming months. Other central banks in developed economies, such as the euro zone and England, kept their benchmark rates unchanged in an effort to support the recovery in economic activity.

As for inflation in the emerging economies, the picture is mixed. Countries such as Brazil, India, and Indonesia exhibit a relatively high inflation; in some cases, it is above the targets set by their central banks. Chile, Colombia, and Peru have low but accelerating inflation, partly because of the depreciation in their currencies in recent months. Other Asian economies exhibit low and even declining inflation (Taiwan and Korea).

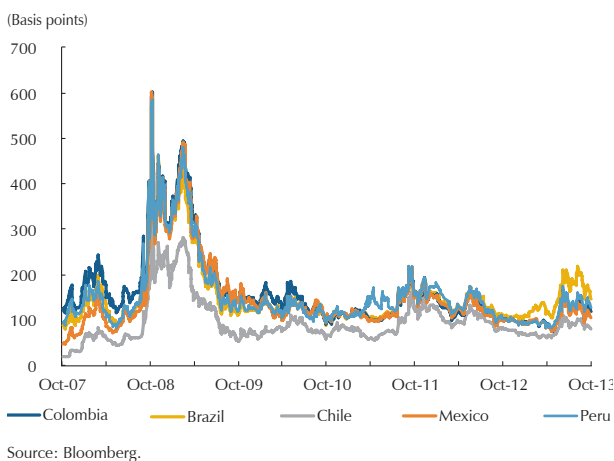
Graph 9
Global Stock Indexes



Graph 10
Nominal Exchange Rate Index for Several Latin American Economies



Graph 11
Five-year Credit Default Swaps (CDS) for several Latin American Countries



3. Financial Markets

The behavior of financial markets during the third quarter was conditioned, once again, by the Fed's monetary policy decisions. Against this backdrop, assets devaluated between May and June, following announcements that the stimulus program might be tapered, then partially corrected in September. Although the markets expected the reduction in stimulus to begin that month, it did not happen. The Fed also made it clear that any action would be dependent on the evolution of the US economy (Graph 9).

According to the latest minutes released by the Fed, a change in its monetary policy stance (toward less stimulus) could begin in late 2013 or early 2014. In all, it will depend on the behavior of productive activity, the reaction of financial markets when the monetary stimulus program begins to be tapered, and the effects that fiscal uncertainty might have on production and confidence in the coming months.

In this environment, the currencies of several emerging economies somewhat corrected the sharp depreciation witnessed in May and June. Likewise, the risk premia of some economies declined in recent months. In particular, the behavior of currencies and risk perception in Latin America trended downward in the last few months (Graphs 10 and 11).

During the final weeks of September and in early October, the uncertainty about fiscal management in the United States had a negative impact on global financial markets, given the fear of a further contractionary effect of fiscal policy in 2014 or an unlikely default. This uncertainty led to some devaluation in financial markets, increases in long-term rates, and added volatility. The markets corrected their behavior insofar as decisions on the tax issue were taken.

The baseline scenario assumes that tapering of the monetary stimulus program is being delayed until the first half of 2014.

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

In general, global activity has evolved as anticipated in the baseline scenario for inflation presented in the June edition of the Inflation Report, although recent events in the United States and in some emerging economies added to the downside risks for 2014. On this occasion, the baseline forecast (Table 1) for the international variables changed little, although the low scenario became more pessimistic.

In this report, the baseline forecast for the United States anticipates a bit of a slowdown in growth during the fourth quarter of 2013. However, 2014 is still expected see GDP accelerate, similar to what was forecast in the June edition and based on better domestic demand, less of an effect from fiscal adjustment than in 2013, and more of a contribution from external demand.

The baseline scenario assumes the Fed will delay tapering its monetary stimulus program until the first half of 2014 and the change in stance would have no negative effects on growth and generate no major disruptions in global financial markets. Furthermore, this scenario was constructed on the

Table 1
Growth Forecasts for Colombian Trading Partners

Growth forecasts for trading partners	2012	Forecasts for 2013			Proyecciones para 2012		
		Minimum forecast	Scenario Baseline forecast	Maximum forecast	Minimum forecast	Scenario Baseline forecast	Maximum forecast
Main partners							
United States	2.2	1.3	1.6	1.9	1.0	2.5	3.5
Euro Area	(0.6)	(0.6)	(0.4)	(0.2)	(0.7)	0.7	1.5
Venezuela	5.6	0.0	1.0	2.0	(2.0)	1.0	3.0
Ecuador	5.0	3.5	4.0	4.5	3.0	4.0	5.0
China	7.8	7.4	7.6	7.8	6.8	7.4	8.0
Other partners							
Brazil	0.9	2.0	2.5	3.0	2.0	3.0	4.0
Peru	6.3	5.0	5.5	6.0	4.5	5.5	6.5
Mexico	3.9	0.8	1.4	2.0	2.0	3.5	5.0
Chile	5.5	4.0	4.4	4.8	3.5	4.5	5.5
Total trading partners (non-traditional trade-weighted)	3.5	2.2	2.7	3.1	1.7	3.1	4.2
Developed countries ^{a/}	1.2		1.2			2.0	
Emerging and developing countries ^{a/}	4.9		4.5			5.1	
Total worldwide ^{a/}	3,1		2,9			3,6	

a/ IMF forecasts at June 2013
Source: calculations by Banco de la República.

The baseline scenario assumes the United States Congress will reach a decision to avoid default in early 2014.

assumption that the United States Congress will reach a long-term decision to avoid default at the start of the year and prevent the activation of automatic spending cuts (or sequestration) in 2014. Even so, the forecasts take into account the added uncertainty that has emerged in recent weeks, which would have a negative impact on consumer and investor confidence during the remainder of this year.

With regard to the euro zone, the region is expected to continue to recover at a modest pace during the remainder of the year and in 2014. However, for 2013 as a whole, this still implies annual negative growth. In the baseline scenario, the expectation is for further headway on financial integration issues and this fact, together with better economic performance, might help to ease the financial tension. In the case of Colombia's other major trading partners, the forecast for growth in 2013 as a whole declined slightly compared to what was anticipated three months ago. Some acceleration is expected by 2014; yet, in most cases, the growth rate would be less than the average observed in 2010-2012.

As in previous quarters, the baseline forecast still faces downside risks, mainly those reflected in a bearish scenario. In this case, uncertainty about the tax agreements in the United States might have negative repercussions for consumer confidence and financial markets, affecting GDP in the United States and in other countries during the remainder of 2013 and in 2014. The low scenario also assumes that the US Congress might not reach agreement on the budget for the next fiscal year. Should that happen, the new automatic cuts in government spending would kick in at the start of 2014 and would be higher than those observed in 2013. This was not fully contemplated in the forecasts outlined in earlier reports.

That scenario also assumes that financial markets would react somewhat unfavorably to the Fed tapering its monetary stimulus program in the first half of 2014. In this case, interest rates in the United States would increase more than anticipated in the baseline forecast, affecting the recovery of the economy and particularly the housing market.

Less US growth estimated in the low scenario would impact the euro zone, interrupting the slow recovery observed as of late, since that region remains highly vulnerable to external shocks. In turn, less growth in Europe would complicate the fiscal and financial sustainability of some countries, especially those on the periphery. As highlighted by the IMF, the financial sector remains extremely vulnerable to the growth problems that the corporate sector in that region might face. The latter has seen its delinquency rate increase sharply in recent months and could have liquidity problems if the economy does not resume growth at an acceptable rate.

The financial sector in Europe remains highly vulnerable to the growth problems that the corporate sector might face.

As for the emerging economies, the low scenario assumes more of a slow-down in economic growth, related in some instances to greater financial instability. This would be more likely in the case of those countries that are more dependent on short-term flows of foreign capital and have accumulated higher macroeconomic imbalances in recent years, such as Turkey, India, Indonesia, and Brazil (Box 1).

With respect to international oil prices (Table 2), the rise during the third quarter led to an increase in the forecasts for the remainder of this year and the next. Accordingly, the baseline scenario in this report anticipates an average price of US\$108 per barrel for Brent crude in 2013 and US\$ 102 in 2014. According to the low scenario, the international prices would be US\$ 106 and US\$ 90 per barrel, respectively. In the case of coal prices, the forecasts have changed little compared to the previous report. A drop in 2014 is still expected and would be slightly more than the average reduction forecast for 2013. As for coffee, the price estimates declined slightly with respect to the June report, given the downward trend observed in recent months. Even so, no new reductions are expected for 2014.

Table 2
Benchmark Price Forecasts for Colombian Commodity Exports

Major products	2012	Forecasts for 2013			Forecasts for 2014		
		Escenario			Escenario		
		Minimum forecast	Central	Maximum forecast	Minimum forecast	Central	Maximum forecast
Colombian coffee (ex dock; US dollars per pound)	2.0	1.45	1.50	1.55	1.30	1.60	2.00
Brent crude (US dollars per barrel)	112	106	108	110	90	102	110
Coal (US dollars per ton)	92.8	86	88	90	75	85	95
Nickel – London exchange (US dollars per ton)	17,591	14,000	15,000	16,000	14,000	16,600	19,600
Gold ^{a/} (US dollars per troy ounce)	1,670	1,450	1,420	1,400	1,400	1,300	1,200

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

B. BALANCE OF PAYMENTS

Colombia's balance of payments in the second quarter of 2013 showed a current account deficit equal to 3.0% of GDP (US \$ 2,716 m), which is less compared to the deficit during the same period last year (3.9% of GDP, US \$ 3,511 m). The lower deficit was associated primarily with a larger merchandise trade surplus, due to a reduction in imports (-2.0% annually) and less of a deficit in the balance for non-factor services and in net factor income. The latter is related to fewer profits and dividends remitted by foreign-owned companies, especially those in the mining sector (coal), given lower international prices.

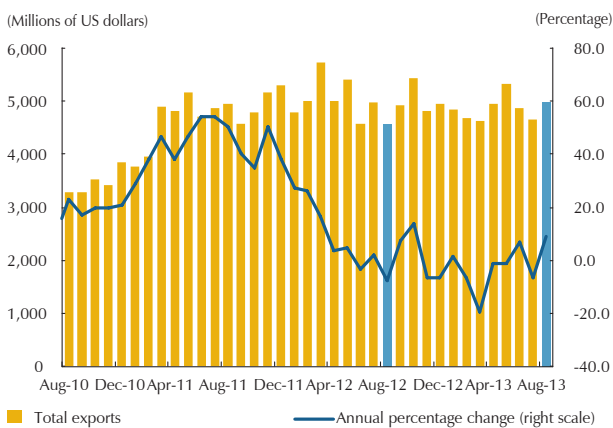
In terms of financing the current account, the deficit in the second quarter was supported by levels of external funding similar to the resources observed during the same period last year, which implied a surplus of US\$ 4,455 m (5.0% GDP) in the capital and financial account, compared to US\$ 4,600 m (5.1% of GDP) a year ago. The main source of this funding is still foreign direct investment (FDI): it rose 8.0% annually to US \$ 4,576 m during the second quarter of 2013. Added to these resources is the net income from long-term foreign borrowing (US \$ 1,959 m) and short-term

portfolio investments, which increased compared to the resources observed during the same period last year. This was offset by a rise in net investment by Colombians abroad, which registered US \$ 1,051 m in outflows in the second quarter of 2013, and net outlays associated with short-term portfolio investments and external borrowing. Additionally, the figures in the balance of payments show the change in the balance of gross international reserves amounted to US \$ 2,058 m during the period in question.

The country's balance of payments showed a current account deficit for the first half of 2013 equal to 3.3% of GDP (US \$ 5,889 m). This exceeds the deficit accumulated during the same period last year (2.9% of GDP, US \$ 5,205 m).

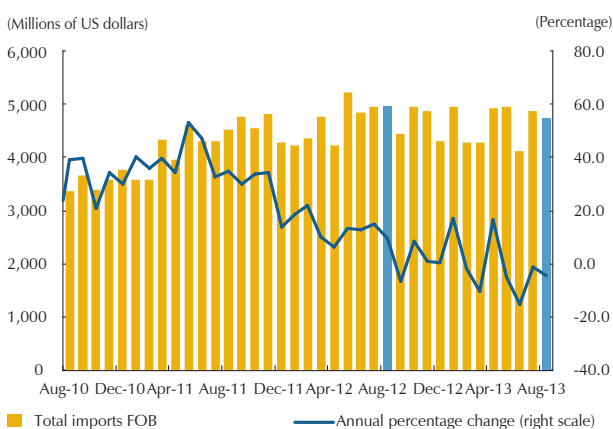
The information that is available on foreign trade in goods during the third quarter of 2013 points to a recovery in the trade balance for July- August compared to the same two-month period last year. In fact, in those months, total exports in US dollars grew 0.9%, on average, over the same period last year (Graph 12), while FOB imports (free on board)¹ declined 3.0% in annual terms (Graph 13). Even so, there continued to be less of an accumulated trade surplus for the full year, due to the supply shocks that occurred, especially during the first quarter.

Graph 12
Total Exports
(Monthly)



Source: DANE.

Graph 13
Total Imports FOB
(Monthly)

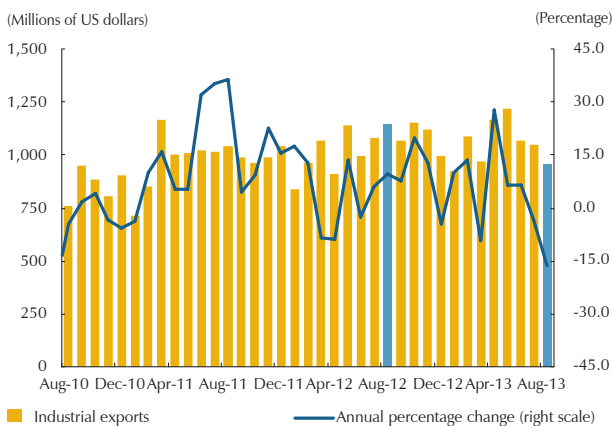


Source: DANE.

1 Unlike the balance-of-payments measurement, which takes into account imports FOB (free on board), the GDP calculation based on the national accounts considers imports CIF (cost, insurance and freight), which include the value of freight and insurance. The average total value of the latter, in dollars, came to US \$ 5,043 million in July-August 2013, with an annual 3.3% decline.

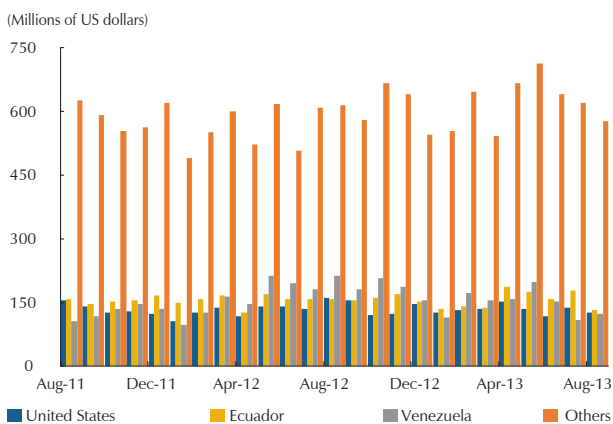
Exports during the July-August period primarily reflect the growth in mining exports, which increased at an average annual rate of 5.1% over the same period last year. This result was driven by the strong momentum in crude oil exports, which rose 22.5% during the period, on average, thanks to better international prices and a higher average in terms of export volume. This was offset partly by the negative results for coal, ferronickel, and gold (-6.4%, -16.9%, and -55.4% annually, in that order). Agricultural exports (coffee, bananas and flowers) were down by 4.9% (annual average for the two months), due to the reduction in foreign sales of these three products, despite a significant increase in the volume of coffee exports (32% in annual terms).

Graph 14
Industrial Exports and Others^{a/}



a / Not including oil or derivatives thereof, coal, ferronickel, gold, coffee, bananas, or flowers. Includes other mining and agricultural goods. Source: DANE.

Graph 15
Non-commodity Industrial Exports to the United States, Ecuador, Venezuela and All Other Destinations^{a/}



a / Does not consider coffee, oil derivatives, nickel or gold. Source: DANE.

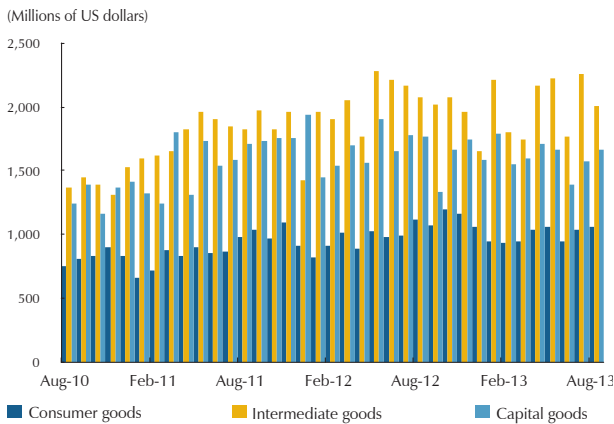
Industrial exports² (which accounted for 20.8% of total exports during the period in question) fell by 10%, on average, between July and August, compared to the same two months in 2012 (Graph 14). This reflects a general decline in sales to the main destinations for these exports, with average annual reductions of 9.4%, 40.5% and 1.8% in July-August for the United States, Venezuela, and Ecuador, respectively. Sales of industrial products to other markets fell 2.2% in annual terms, given the reversal in the results for automobile exports and, to a lesser extent, chemicals (Graph 15).

Imports FOB in US dollars fell during July-August, posting an average reduction of 3.0%. The drop in purchases of capital goods was particularly notable, registering an average annual decline of 8.6%, partly due to fewer purchases of transportation equipment during that period. Although imports of transportation equipment saw negative growth in 2012 and so far in 2013, they are still significantly higher than those observed in 2010 and in previous years.

Purchases of intermediate goods declined 0.6% in annual terms, given fewer imports of raw materials and intermediate goods for agriculture and industry (2.4% and 2.1% annually, on average, in that order). This performance was offset, in part,

2 These exports do not include petroleum or derivatives thereof, nor coal, ferronickel, gold, coffee, bananas, or flowers. Industrial exports account for 95% of this group, since they include other mining and agricultural goods.

Graph 16
Imports by Type of Goods (FOB)



Source: DANE.

by an average increase in fuel imports. In contrast, imports of consumer goods grew at an annual rate of 0.5% during July-August, with durable goods increasing the most (Graph 16). As for current transfers so far this year through August, worker remittances continued to grow at a moderate annual rate of 2.7% over the same period last year.

The available figures on the accumulated exchange balance³ for the first nine months of 2013 continue to show growth in private capital inflows compared to the year before, but with less of an increase in recent months. These inflows were driven mainly by larger net flows of financial or

portfolio investment, since FDI flows remained at levels similar to those witnessed in 2012. Moreover, from January to September, net international reserves increased by US \$ 5,594 m to a balance of US \$ 43,061 m at September 30.

According to this information and the forecast ranges for the leading external and internal variables (presented throughout this report), the balance-of-payments forecast anticipates a moderate increase in the current account deficit during 2013. In fact, the current account deficit for the entire year is expected to be somewhere between 3.3% and 3.5% of GDP. This would be consistent with -4.2% to -0.6% annual growth in total exports in US dollars, due to less of an increase in external demand over the previous year, a reduction in prices for the country's main export products, and domestic supply problems with some exportable items. Imports, on the other hand, are expected to remain at levels similar to those witnessed in 2012, with growth forecast within a range of -0.6% to 2.5%, given the way domestic demand is expected to behave.

The international trade estimates for 2013 would be accompanied by reduced net outflows of factor income, given a decline in the estimated value of mining exports, which are the main source of remitted profits and dividends. Moreover, net transfer income is forecast at levels similar to those of the year before, consistent with a modest recovery in worker remittances. This is according to what is on record so far this year, which would be offset by a slight increase in outlays for other transfers.

The forecast of the balance of payments estimates a moderate increase in the current account deficit for 2013 compared to the deficit the year before.

3 Although the capital flows in the exchange balance do not correspond exactly to what is entered in the balance of payments, since the former refer to the entry and outflow of foreign exchange, they do offer some idea of the trend.

It is estimated that FDI will continue to be the main source of external financing in 2013, with slightly higher levels than those observed in 2012.

As for the capital and financial account, FDI would continue to be the main source of external financing in 2013 at levels similar to or slightly above those observed in 2012. This would be consistent with good performance by sectors other than mining-energy, which fueled growth in this revenue during the first half year. Capital outflows for Colombian investment abroad (CIA) increased over the previous year, given the announcements made primarily for financial establishments and food sectors. This implies fewer net FDI resources. The forecast for 2013 also considers more external financing for the public sector than in 2012, largely due to borrowing by the central government (CG) and Ecopetrol (Table 3). With respect to the CG, it is important to point out that part of the external debt acquired during the third quarter is pre-financing for next year's budget.

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

	(Millions of US dollars)				(Percentage of GDP) ^{d/}			
	2010	2011 (p)	2012 (pr.)	2013 (proj.)	2010	2011 (p)	2012 (pr.)	2013 (proj.)
I. Current account	(8,919)	(9,839)	(12,173)	(12,779)	(3.1)	(2.9)	(3.3)	(3.4)
A. Non-factor goods and services ^{a/}	(1,343)	1,367	(685)	(2,531)	(0.5)	0.4	(0.2)	(0.7)
B. Factor income	(12,024)	(16,040)	(15,967)	(14,589)	(4.2)	(4.8)	(4.3)	(3.9)
C. Transfers	4,448	4,834	4,479	4,341	1.5	1.4	1.2	1.2
II. Capital and financial account	11,770	13,309	17,295	20,027	4.1	4.0	4.7	5.3
A. Private sector: net direct investment and other capital flows ^{b/}	6,981	10,470	14,640	10,092	2.4	3.1	4.0	2.7
B. Public sector	4,789	2,839	2,655	9,936	1.7	0.8	0.7	2.6
III. Errors and omissions	285	274	301	259	0.1	0.1	0.1	0.1
IV. Change in gross international reserves ^{c/}	3,136	3,744	5,423	7,508	1.1	1.1	1.5	2.0

(p.): provisional

(pr.): preliminary

(proj.): projected

a / Includes the balance of non-factor goods and services and special commerce operations.

b / Includes net flows of foreign direct investment, portfolio investment and net external borrowing operations.

c / The change in gross international reserves consider contributions to the Latin American Reserve Fund (FLAR).

d / The figure for real GDP growth in 2013 is an estimate developed by the Division of Economic Studies.

Source: Banco de la República.

Importantly, the forecast for the balance of payments reflects a change in gross international reserves that is consistent with the intervention announced by *Banco de la República*⁴ and the respective financial returns. In 2014, the current account deficit could be between 3.1% and 3.6% of GDP and would be funded largely by FDI inflows and by external resources for the public sector.

4 Considers up to US \$ 1,000 m in foreign exchange to be purchased between October and December 2013.

Box 1

THE VULNERABILITY OF SEVERAL EMERGING ECONOMIES IN THE FACE OF LESS GLOBAL LIQUIDITY

Óscar Iván Ávila Montealegre

Juliana Ávila Vélez

Santiago Espinosa Meléndez

Natalia Solano Rojas*

Following the financial crisis in 2007-2008, the central banks of the major developed economies adopted a number of policy measures to stimulate real domestic activity. Monetary authorities in the United States, the United Kingdom and the euro zone reduced their benchmark interest rates to historically low levels and expanded their balance sheets considerably.

In the case of the United States, the Federal Reserve (Fed) conducted three rounds of quantitative easing as of late 2008; these implied an increase in global liquidity. Low international interest rates, coupled with the added amount of liquidity, lowered the cost of foreign financing for a broad group of emerging economies. Likewise, the increase in capital flows, particularly for portfolio investment, boosted financial asset prices in these countries.

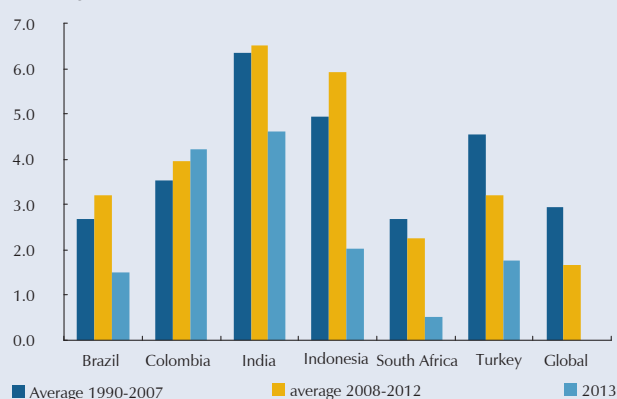
The probability that the Fed will begin to taper the current monetary stimulus program, as it announced late in May of this year, has caused alarm with respect to some economies that were favored by broad global liquidity and increased their exposure to short-term flows in recent years. For this reason, it is important to identify the possible strengths and weaknesses of these countries for dealing with this eventuality. Accordingly, several macroeconomic variables for India, Indonesia, South Africa, Turkey and Brazil are analyzed briefly in this section to compare them, to some extent, to the Colombian economy.

To begin with, this group of countries experienced more real growth in gross domestic product (GDP) than the advanced economies and exceeded the world average in that respect (Graph B1.1). This situation was favored in recent years by the increase in global liquidity that has given these countries access to more resources at less

* The first author is a specialized professional with the Department of Programming and Inflation; the others are student interns with the same department. The opinions expressed herein imply no commitment on the part of *Banco de la República* or its Board of Directors.

Graph B1.1
Real GDP Growth

(Percentage)



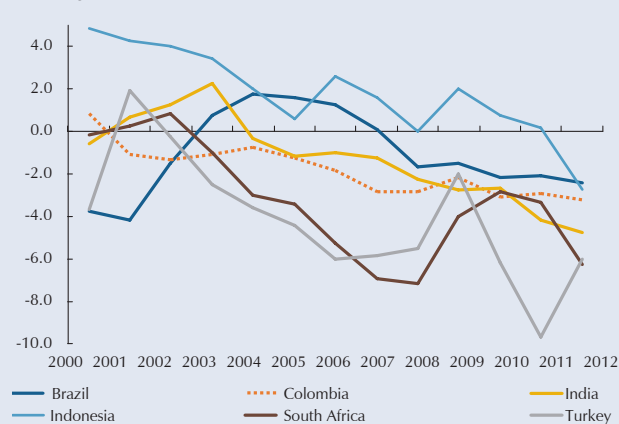
Source: Bloomberg.

cost, thereby leveraging the expansion in their domestic demand at a time when external demand has weakened.

An increase in the current account deficit of these countries and in their domestic and foreign debt was observed between 2008 and 2011 (Graph R1.2). Some already had external imbalances, which were intensified in recent years. The rapid growth in lending allowed for an increase in domestic demand, which favored GDP growth in an environment where external demand remained weak, especially from the countries of the euro zone. Moreover, after the financial crisis and the slowdown

Graph B1.2
Current Account Deficit as a Share of GDP

(Percentage)



Source: IMF.

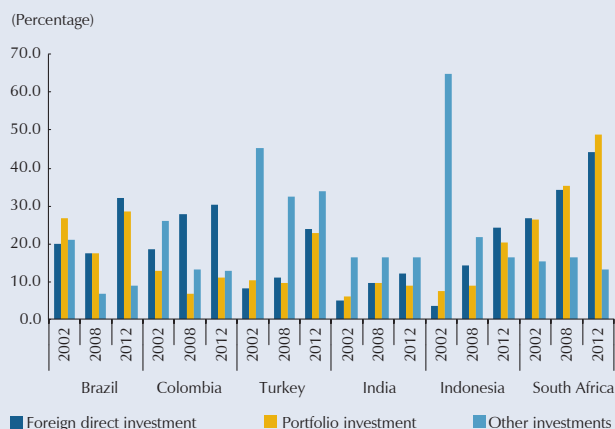
in the developed economies, financing for foreign purchases by these countries increased through short-term capital flows.

It also is important to point out that some of these economies have relatively high levels of foreign debt, such as Turkey, where it accounted for 40% of GDP in 2011 (according to data from the World Bank). The respective levels for Indonesia and South Africa are 25% and 28%, in that order, while Brazil and India have better indicators, with figures below 20%. In the case of Colombia, the level is 23%.

In fact, one of the main concerns about the economic stability of those countries and their dependence on external liquidity conditions stems from the fact that portfolio flows, as a proportion of GDP, have been on the rise. These resources might end up being more sensitive to global uncertainty and could overreact more easily to changes in external conditions derived from any tapering of monetary stimulus in the advanced economies (Graph B1.3). On the one hand, there is the potential for increased risk of refinancing associated with short-term portfolio investments, as well as higher costs, due to an increase in foreign interest rates and higher risk premia for these countries.

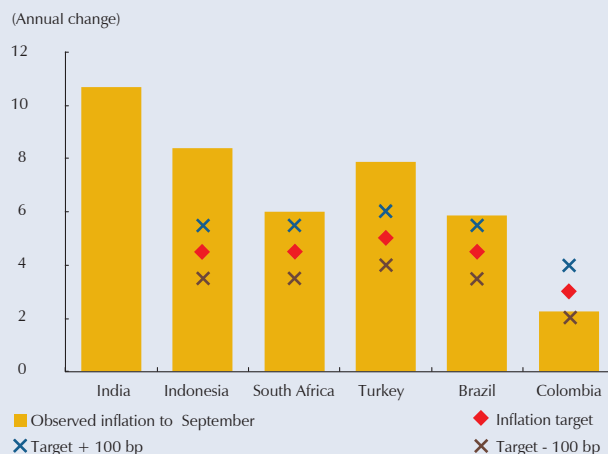
There also are limits to what the authorities of these countries can do to implement stimulus measures that will offset the effects of less international liquidity. In the case of monetary policy, inflation in several of these economies is above the targets set by their central banks (Graph B1.4). As for fiscal policy, the rise in public deficits in recent years leaves less room to implement expansionary measures. The performance of international reserves has been mixed. While they have fallen in India and South Africa in

Graph B1.3
Capital Account Breakdown



Sources: Central Bank of Brazil, Banco de la República de Colombia, Reserve Bank of India, Central Bank of the Republic of Turkey, IMF.

Graph B1.4
Percentage Change in Consumer Price Indexes versus Inflation Targets

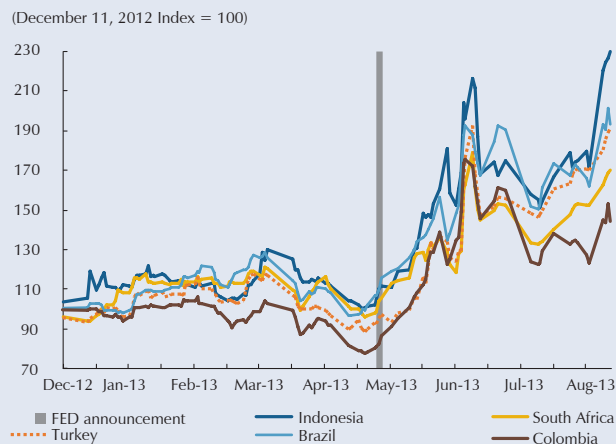


Sources: Central Bank of Brazil, Banco de la República de Colombia, Reserve Bank of India, Central Bank of the Republic of Turkey, IMF.

recent years, as a percentage of GDP, they have increased in Turkey and demonstrated more stability in Indonesia and Brazil. Yet, despite the accumulation of reserves, Turkey's short-term borrowing as a percentage of foreign reserves has increased considerably in recent years. According to figures released by the World Bank, this indicator was close to 100% in 2011. Although it increased in India as well, the level is relatively low. It declined in Brazil and South Africa.

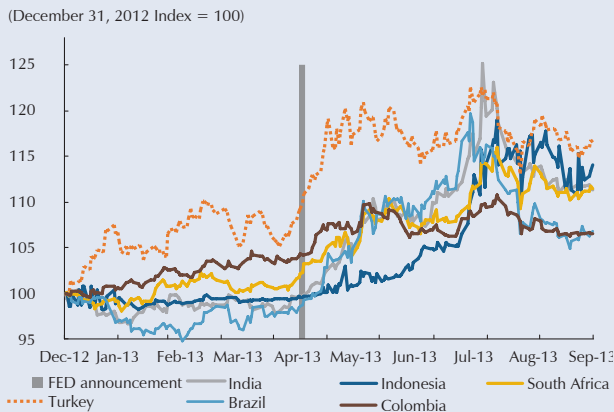
As for perceived risk, the credit default swaps (CDS) and emerging market bond Indexes (EMBI) of these countries increased after the Fed's announcements that it might start to ease its monetary stimulus (Graph B1.5). Also, their currencies depreciated sharply against the US dollar (Graph

Graph B1.5
Credit Default Swaps at Five Years



Sources: Bloomberg.

Graph B1.6
Nominal Exchange Rate Index



Source: Bloomberg.

R1.6), especially in South Africa and India, and stock indices lost value. This situation coincided with an outflow of capital from these economies, which began in May.

Economic growth has slowed so far in 2013, due to reduced momentum in domestic demand, which is now supported less by household debt and faces less stimulus from domestic monetary and fiscal policy. It is important to point out that exchange depreciation brought more pressure to bear on inflation and could increase the value of the external debt in domestic currency, a situation that further complicates the possibility of implementing stimulus policies. Specifically, in recent months, the central banks in some of these countries have increased their benchmark rates as a way to control the rise in the price level.

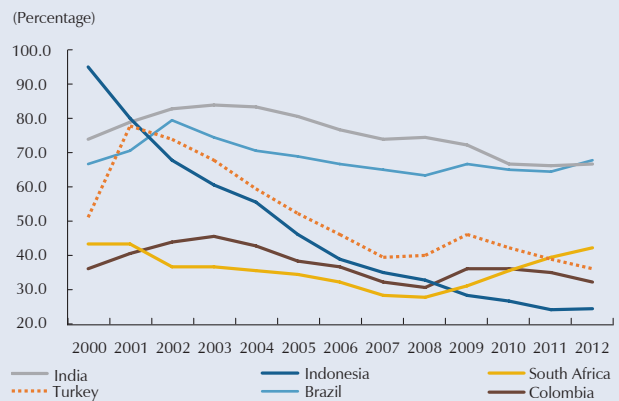
On the other hand, it is important to emphasize the case of Brazil, an economy that has already experienced a sharp slowdown in its growth rate since 2012 and faces certain structural problems that limit its expansion, such as an infrastructure deficit and a lack of reforms to make certain strategic sectors more competitive and productive. By the same token, the country's supply constraints have created inflationary pressures that were difficult to contain in recent quarters. This unfavorable environment for the Brazilian economy would be affecting inflows of foreign direct investment (FDI), which had contributed significantly to its growth until recently.

The Colombian economy does not seem to have accumulated the same vulnerabilities as the countries described earlier. Therefore, it may be less sensitive to the global liquidity shock. Although the current account deficit has grown in recent years (having gone from 2.8% of GDP

in 2008 to 3.3% in 2012), its acceleration was less compared to the other economies analyzed.¹ Moreover, the bulk of financing in Colombia has been through FDI.

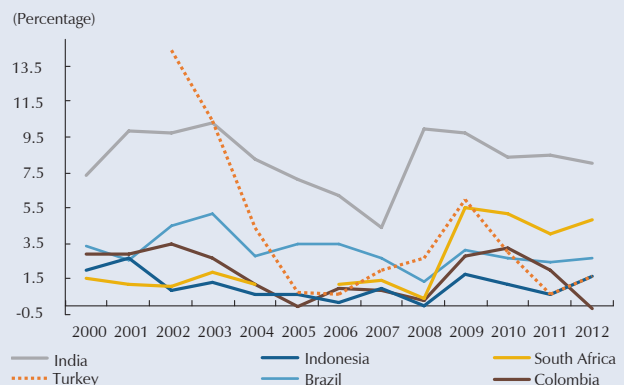
In terms of economic policy, Colombia's fiscal and monetary authorities have more room to implement stimulus measures in the event of an unfavorable global liquidity shock. In this sense, inflation is below the 3.0% target and the fiscal imbalances are less than those observed in other economies (Graphs B1.7 and B1.8). Furthermore, although borrowing increased in recent years, its growth began to slow as of mid-2012. This trend has continued and the debt-to-GDP ratio has stabilized as a result. Even so, asset prices have risen steadily, particularly in the case of housing.

Graph B1.7
Central Government Debt as a Percentage of GDP



Source: FMI.

Graph B1.8
Central Government Deficit as a Percentage of GDP



Source: IMF.

1 The deficit as a percentage of GDP in 2012 was 4.8% for India, 6.3% for South Africa and 6.1% for Turkey.

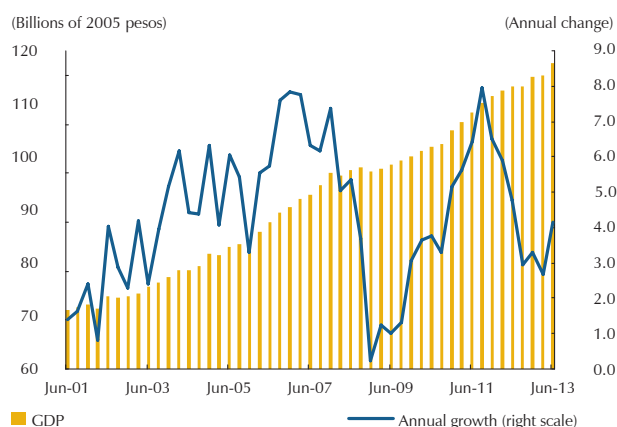
II. DOMESTIC GROWTH: THE CURRENT SITUATION AND THE SHORT-TERM OUTLOOK

In the second quarter of 2013, the Colombian economy grew 4.2% in annual terms, a figure that exceeds annual growth in the first quarter and surpasses forecast range outlined in the previous edition of the Inflation Report. The build-up is explained, in part, by a greater number of working days compared to a year ago.

The momentum in both private and public consumption stands out. Construction and agriculture were the sectors that posted the most growth.

In the third quarter of 2013, the Colombian economy is expected to grow at a higher rate than during the first half of the year.

Graph 17
Gross Domestic Product
(Seasonally adjusted)



Source: DANE; calculations by Banco de la República.

A. GDP: SECOND QUARTER 2013

The Colombian economy grew at an annual rate of 4.2% during the second quarter of 2013 (Graph 17), as reported by the National Bureau of Statistics (DANE). In quarterly terms, this performance represents a variation of 2.2% compared to the GDP level in the first quarter. The current figure surpasses the growth range published in the previous edition of this report.

This significant build-up was due, in part, to more business days compared to the same period in 2012, as mentioned in previous editions of the In-

Domestic demand accelerated in the second quarter at an annual 4.1% rate.

flation Report. An exercise conducted by the technical staff at *Banco de la República* suggests second-quarter growth would have been about 3.6%, if the extra business days are discounted, and 3.1% in the first quarter. According to these calculations, the Colombian economy would have grown by 3.3% during the first half of the year, which is not significantly different from the official rate of 3.4% published by DANE. The same exercise also shows an increase between quarters.

In addition, the GDP growth figures for the previous three quarters and all of 2012 were revised upward, from 4.0% to 4.2% in the case of the latter. This adjustment was primarily in the category of civil works construction, due to the added amount of information made available by those executing infrastructure projects.

According to DANE, domestic demand rose 4.1% in annual terms during the second quarter (compared to 3.5% in the first quarter). This increase was fueled by domestic consumption, which showed good momentum during the period, having expanded at rates above its historical average. Investment exhibited less growth than in the period from January to March, partly because of the high basis of comparison recorded in the second quarter of 2012. However, its variation between quarters was significant.

A look at the components of domestic consumption shows good performance for end consumption on the part of the national government and households. First aggregate grew at an annual rate of 5.0%, up from 4.2% in the first quarter. The annual change in household consumption came to 4.4% (as opposed to 3.5% in January-March), thanks to an acceleration in the growth rates for all the items that make up consumption of this type (Table 4). The major contributions, at this level, came from consumption of services and non-durable goods, items that account for an important share of household spending. Also noteworthy was the sharp rise in consumption of durable goods, which increased at an annual rate of 4.5%, following the 0.9% drop on record for the previous quarter.

Household and government consumption performed well between April and June.

The results were mixed for the items that make up investment. On the one hand, the performance of machinery and equipment, which grew 4.3% in annual terms compared to 0.3% in the first quarter, was a high point. On the other, building construction and civil works expanded at lower rates than those reported in early 2013, largely because of the high base of comparison with respect to the same period in 2012. Despite these slowdowns, this item did not perform poorly and continued as expected in the wake of government policies on “priority interest” housing construction and subsidized interest rates. Investment in transport equipment posted the worst performance, falling 13.5% year on year (versus -9.5% in the first quarter); this was akin to the performance registered for imports of this type.

Table 4
Real Annual GDP Growth by Type of Expenditure

	2012				2012	2013		Contribution to Annual Growth (Q2 2013) (Percentage points)
	Q1	Q2	Q3	Q4	Full year	Q1	Q2	
Total consumption	5.3	4.3	4.7	4.9	4.8	3.6	4.6	3.7
Household consumption	5.6	3.9	4.5	4.9	4.7	3.5	4.4	2.9
Non-durable goods	5.5	2.3	3.3	3.3	3.6	3.3	4.3	0.9
Semi-durable goods	13.8	7.6	7.7	7.3	9.0	2.5	5.9	0.4
Durable goods	-5.9	2.2	3.8	20.4	4.7	-0.9	4.5	0.2
Services	5.9	4.6	4.5	4.1	4.8	3.6	4.2	1.4
End government consumption	4.2	4.8	5.1	6.4	5.1	4.2	5.0	0.8
Gross capital formation	10.3	13.3	2.3	3.9	7.3	3.1	2.9	0.8
Gross fixed capital formation	10.0	13.7	2.9	4.4	7.6	6.1	4.2	1.2
Agriculture, forestry, hunting and fishing	4.0	2.7	0.9	0.9	2.1	-3.1	-1.9	(0.0)
Machinery and equipment	13.2	8.9	5.4	4.6	7.9	0.3	4.3	0.4
Transport equipment	18.0	16.8	-10.4	-14.1	0.9	-9.5	-13.5	(0.5)
Construction and buildings	2.3	16.9	-11.9	13.0	4.8	10.2	8.6	0.6
Civil works	8.6	9.5	8.5	1.1	6.8	16.1	5.1	0.4
Services	6.6	14.4	-6.0	9.1	5.9	2.5	2.9	0.0
Domestic demand	6.1	6.9	3.9	4.7	5.4	3.5	4.1	4.5
Total exports	8.1	5.0	5.4	3.1	5.4	-2.7	7.6	1.3
Total imports	13.2	11.1	9.3	3.1	9.1	-0.2	1.3	(0.4)
GDP	5.9	4.8	2.9	3.3	4.2	2.7	4.2	4.2

Source: DANE; calculations by Banco de la República.

As to foreign trade, real exports and imports increased at higher rates than in the first quarter, when their growth rates declined. The build-up in the first case was due to a substantial rise in non-traditional exports, particularly exports of auto parts and chemical products. In the case of imports, those classified as non-durables performed better, on average, than consumer durables, capital goods and raw materials. Significantly, the reported increases are in real terms and were determined largely by the depreciation in the nominal exchange rate between April and June and by the momentum in prices.

On the supply side, higher growth rates were observed in agriculture and construction (Table 5). On this occasion, most of the sectors registered larger annual increases compared to the previous quarter. Growth rates above 4.0% also were observed in activities such as commerce, mining, social, community and personal services, and electricity, gas and water. Industry (including coffee processing) began to show positive annual variations after having contracted for three consecutive quarters.

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

Sector	2012				2012 Full year	2013		Contribution to Annual Growth (Q2 2013) (Percentage points)
	Q1	Q2	Q3	Q4		Q1	Q2	
Agriculture, forestry, hunting and fishing	2.1	2.9	3.4	1.9	2.6	4.8	7.6	0.5
Mining and quarrying	13.6	8.7	0.6	1.9	6.0	2.2	4.3	0.3
Manufacturing industry	1.3	0.1	(0.7)	(2.7)	(0.5)	(4.4)	1.2	0.1
Electricity, gas and water	4.1	3.6	3.2	3.2	3.5	3.4	4.7	0.2
Construction	8.3	12.1	(0.1)	5.6	6.3	13.4	6.4	0.4
Buildings	8.3	14.9	(10.6)	12.1	5.9	10.0	7.9	0.2
Civil works	8.4	9.9	8.5	1.0	6.9	15.9	5.1	0.2
Commerce, repairs, restaurants and hotels	5.3	4.4	3.2	3.4	4.1	2.8	4.1	0.5
Transport, storage and communication	6.6	3.8	3.1	3.0	4.1	1.9	2.8	0.2
Financial, real estate and corporate services	7.1	5.3	4.4	4.8	5.4	3.3	3.9	0.8
Social, community and personal services	3.9	4.0	5.8	6.0	4.9	4.3	4.7	0.7
Subtotal –value added	5.6	4.6	2.9	3.2	4.1	2.7	4.3	3.7
Taxes minus subsidies	8.0	5.6	2.7	3.4	4.9	3.1	3.0	0.3
GDP	5.9	4.8	2.9	3.3	4.2	2.7	4.2	4.2

Source: DANE; calculations by Banco de la República.

Agriculture was the most dynamic sector of the Colombian economy during the second quarter of 2013, with 7.6% growth, confirming its good performance so far this year (having increased 4.8% in the first quarter). The important momentum in coffee products (32.4%) and the acceleration of other agricultural goods (which were up by 6.7%, following 2.6% growth in the first three months of the year) were highlights with respect to the sub-branches. The largest increases in this last item were in fresh fruits and nuts (6.9%), the production of live plants and flowers (16.8%), beverage plants (66.7%), and oleaginous seeds and fruits (17.1%). Sugarcane, on the other hand, fell by 9.0%

Agriculture and construction were the most dynamic branches of economic activity in the second quarter.

Another sector that reported significant growth was construction; namely, buildings and civil works. In the first case, the annual expansion was 7.9%; in the second, it was 5.1%. Favorable performance in terms of building permits granted and increased execution in the stages of the construction process with more added value explain the momentum in building construction. In this regard, as mentioned, some of the effects of the government's policies to stimulate the sector began to be evident as of the first quarter, although the most significant impact is expected to be concentrated

The performance of construction with respect to civil works was associated with the good dynamics in the item that includes waterways, ports, dams, and water and sewage systems.

in the second half of the year and in 2014. The performance of civil works construction was linked to the good momentum registered with respect to waterways, ports, dams, and water and sewage systems. The item classified as “other engineering works” also contributed positively to civil works construction, thanks to execution of a good portion of the government infrastructure projects.

Commerce, electricity, gas and water, social, community and personal services, and mining are the sectors that accelerated, having grown by more than 4.0%. The momentum in commerce is explained largely by an annual increase of 4.6% in hotel and restaurant services. The fact that Easter was in April this year had quite a positive impact on this item. The high point in the second case was the 18.1% increase in residential natural gas for residential use. In the third case, public administration and defense services (5.2%) and social services and health care (4.7%) continued to perform well. Mining performance was mixed. The growth in oil (7.2%) and in non-metallic minerals (9.4%) was offset by the drop in coal (-5.4%) and metallic minerals (-4.8%).

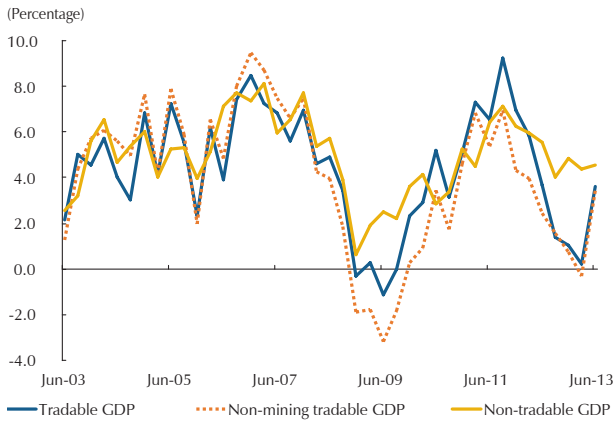
As for the industrial sector, its value added was 1.2%, following the consecutive contractions posted since September 2012. The branches that contributed significantly to the recovery were coffee processing (31.9%), oil refining (5.0%), oil (6.1%) and milk (7.7%). The sectors that detracted from growth were those related to non-metallic mineral products (-2.6%), basic metallurgy (-4.4%), transportation equipment (-7.9%), publishing and printing (-9.1%) and industrial processes associated with the production of refined sugar and panela (brown sugar) (-4.3%).

This apparent recovery is influenced by the effect of more business days in April (due to Easter week). So, it is important to interpret the figures with caution and not rush to conclusions about trends. According to estimates made by the technical staff at *Banco de la República* (see Box 1: “Impact of the Calendar on Economic Activity in Colombia” in the June 2013 edition of the Inflation Report), industry would have contracted 1.2% during the second quarter of 2013 were it not for this phenomenon. In light of these estimates, this also implies a recovery, but one that is less robust than the figures published by DANE, since industry would have gone from -2.3% in the first three months of the year to -1.2% between April and June, as mentioned. Moreover, the statistical discrepancy in the second quarter of 2013 was around 60 basis points (bp), and the increase in manufacturing GDP without coffee processing was about 0.4%.⁵

Industry exhibited some recovery in the second quarter, partly because of the number of business days.

5 In terms of the national accounts, industry without coffee processing would have grown 0.4% in the second quarter of 2013, while the monthly situation indicator of the monthly manufacturing sample (MMM) showed a slight contraction of 0.2%, which complicates an analysis of the trend in the sector.

Graph 18
GDP in the Tradable, Non-mining Tradable and Non-tradable Sectors
(Annual growth)



Source: DANE; calculations by Banco de la República.

Consequently, the annual change in GDP for the non-tradable sectors during the second quarter of 2013 continued to exceed that of the economy as a whole and was similar to the rate of growth registered three months earlier (from 4.4% to 4.5%). The tradable sector continues to report growth below that of the non-tradable sector, although a significant recovery was witnessed between April and June 2012 (from 0.2% to 3.6%). Among other aspects, the figures in the first case are due largely to the momentum in construction, both civil works and buildings (Graph 18); in the second, they are explained by the major build-up in agricultural activities and the improvement in industry.

B. SHORT-TERM GDP FORECAST

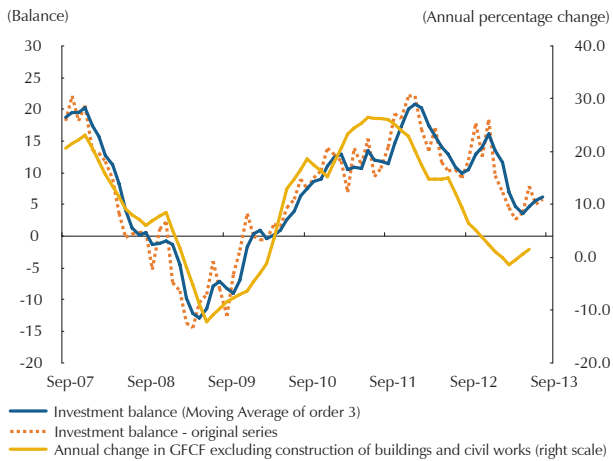
Despite several negative supply shocks during the third quarter of 2013, it is feasible to assume GDP has grown at a higher annual rate during this period than in the first half of the year. This expectation is based on better investment performance, particularly investment in housing and building construction, although the other components of investment also have performed well (mainly investment in machinery and equipment).

With respect to investment in the construction of buildings and civil works, the added increase anticipated for this item is associated mostly with a low basis of comparison stemming from the same period last year. However, the effect of the national government’s policy on “priority interest” housing and generally good prospects for the housing market are also factors. This conclusion is based on the amount of building permits issued during the third quarter, as illustrated later in this report. Civil works increased at slightly higher rates than those on record for the second quarter, particularly due to larger payments intended mainly to repair the effects of the last rainy season, and more royalties paid out, primarily for investment in regional infrastructure projects.

The other items that constitute gross fixed capital formation are expected to perform satisfactorily compared to the figure on record for the second quarter, given the willingness of companies to continue to invest, as suggested by the results of *Banco de la República*’s monthly survey of economic expectations (MSEE) (Graph 19). Moreover, although imports of capital goods and machinery for industry, in dollars, show some setback between July and August, when converting these figures into real pesos one sees expansion associated with the behavior of the exchange rate and prices.

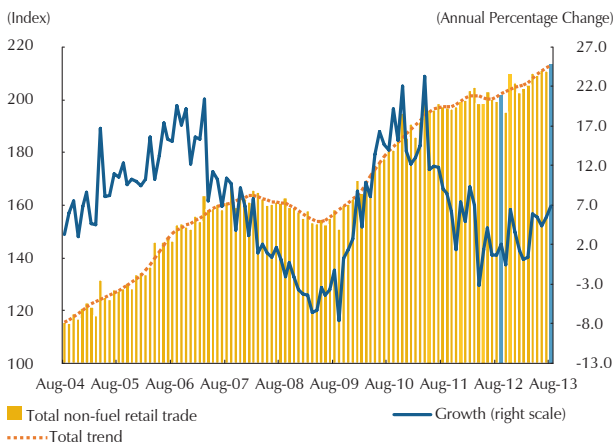
GDP is expected to accelerate in the third quarter, primarily due to investment performance.

Graph 19
Balance of Investment Expectations (MSEE) vs. Annual Change in GFCF Excluding Construction of Buildings and Civil Works



GFCF: gross fixed capital formation
Source: DANE; Monthly Survey of Economic Expectations (MSEE), calculations by Banco de la República.

Graph 20
Monthly Retail Trade Sample
(Total non-fuel retail trade, seasonally adjusted)



Source: DANE; calculations by Banco de la República.

The figures on household consumption suggest this aggregate would have continued to grow at a good pace during the third quarter. According to the data from the Monthly Retail Sample (MRS) published by DANE, retail sales were up at an average annual rate of 6.2% during July and August, compared to 5.8% for the second quarter and 2.8% in the first half of the year. When vehicle sales are discounted, the remaining sales rose 5.9% in annual terms during those two months, indicating more momentum in the consumption of non-durables and semi-durables than in durables (Graph 20).

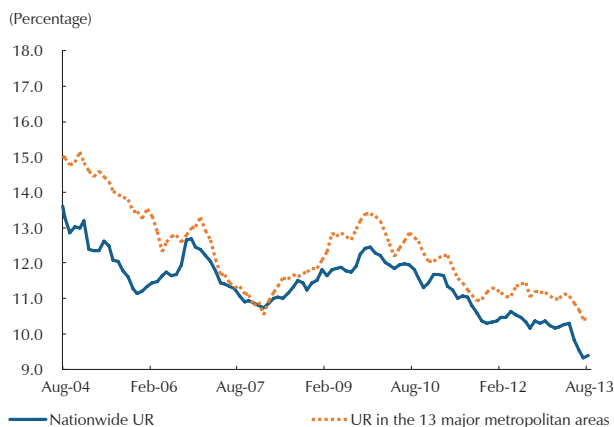
The increase in private consumption would have continued, probably thanks to the improvement in the job market. The significant decline in the unemployment rate (UR) continued in recent months, for all geographic domains (Graph 21). The nationwide UR for the moving quarter ended at August was 9.5%. It was 5.8% in rural areas, 10.4% in municipal seats and 10.5% in the thirteen major metropolitan areas (Graph 22). These data are between 0.5 and 0.9 percentage points below the percentages witnessed a year ago.

The unemployment rate declined because the number of employed continued to rise, although at a slower pace than last year. During the June-August moving quarter, the total number of employed nationwide increased 1.5% in annual terms and 1.8% annually in the thirteen major metropolitan areas (Graph 23, panels A and B). This expansion was concentrated in salaried employment, which

continues to grow in annual terms. The annual increase during the moving quarter ended at August was 4.4% in the thirteen major metropolitan areas, while non-salaried employment was down by 0.9% annually (Graph 24). Salaried employment is usually associated with workers who, on average, are better paid and have more stable jobs.

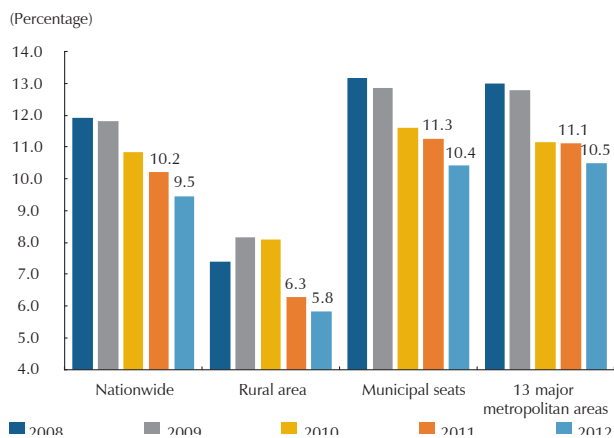
Despite the good news for private consumption on the side of sales and employment, the consumer confidence index (CCI) suffered a setback in August, as was also the case in September (Graph 25). Although the current levels are far from worrying, they do rule out the possibility that growth in household spending will accelerate during the third quarter.

Graph 21
Unemployment Rate (UR)
(Seasonally adjusted moving quarter)



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

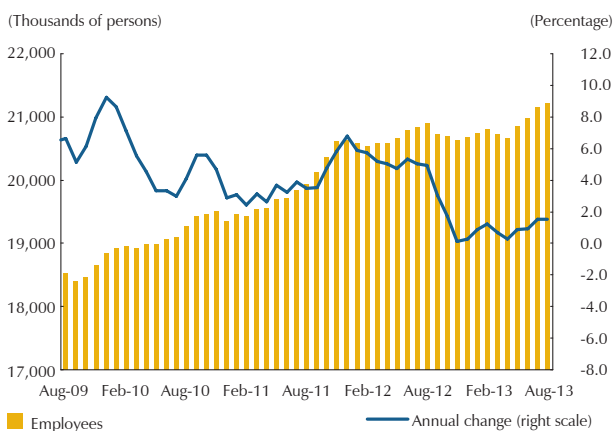
Graph 22
Unemployment Rate
(June-August moving quarter)



Source: DANE (GEIH).

Graph 23

A. Total Employees Nationwide
(Seasonally adjusted moving quarter)



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

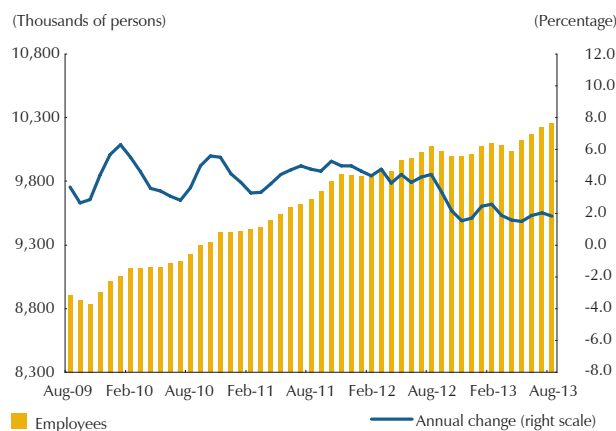
Also, it is important to consider the new slow-downs in the consumer loan portfolio, which was up 12.7% in annual terms during the July-September quarter compared to 14.2% in the second quarter and 15.3% during the first half of the year. This trend was confirmed in real terms. On the other hand, real interest rates charged to households were less, on average, than those registered during April-June, although the pace at which they are declining is becoming slower (Graph 26).

As such, it is fair to expect growth in household consumption would be similar to what it was in the first half of the year. The annual increase in this GDP component during the third quarter would have approached the average for the last decade, which is about 4.0%

With regard to foreign trade, modest export growth is expected during the third quarter, given the various strikes that occurred in the coal sector. Imports would increase at a higher rate than exports, although below the rate posted in 2012. This would imply a negative contribution from net exports, in contrast to what happened during the second quarter of the year.

On the supply side, the balance of the various activity indicators is mixed. Some industrial pro-

B. Employees in the Thirteen Major Metropolitan Areas

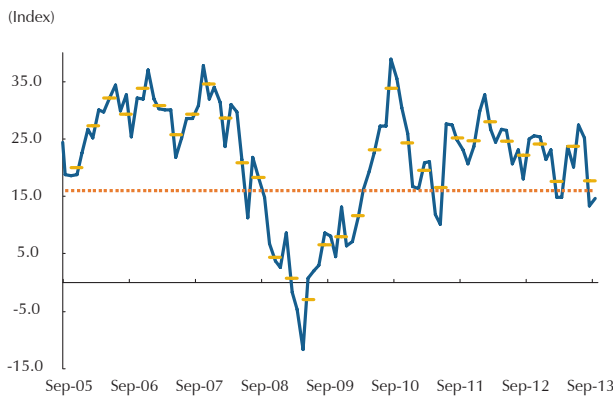


Graph 24
Employment, by Type of Occupation
 (Thirteen major metropolitan areas, seasonally adjusted moving quarter)



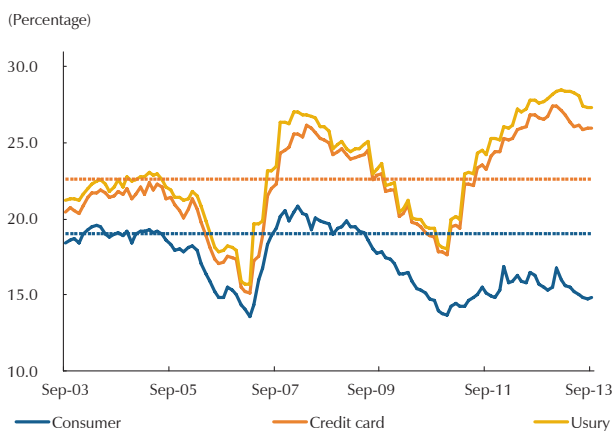
Source: DANE (GEIH); calculations by Banco de la República.

Graph 25
Consumer Confidence Index and Quarterly Average



Source: Fedesarrollo.

Graph 26
Real Interest Rates on Loans to Households
 (Non-food CPI deflated)



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

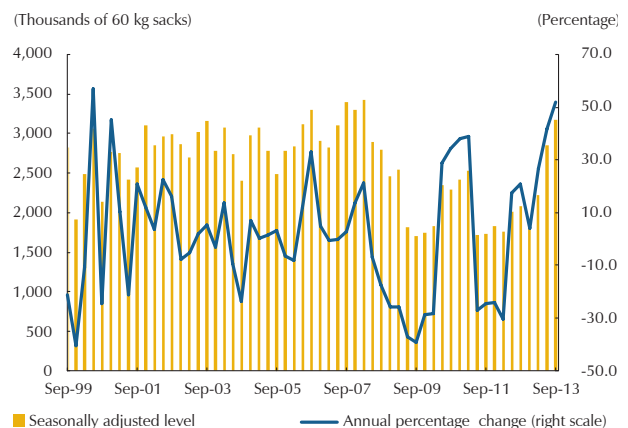
duction figures reported declines, and events related to coal cloud the outlook for the sector. On the other hand, the news is favorable in sectors such as commerce, oil and coffee.

The coffee sector reported 52.6% growth in production during the third quarter of 2013, according to figures published by the National Federation of Colombian Coffee Growers. This momentum ratifies the export figures published by the Federation and DANE at August 2013. The renovation of approximately 460,000 hectares of farmland in the last five years has increased the average productivity of coffee plantations, according to the guild (Graph 27).

As for GDP in commerce, the pace of activity remains positive due to good retail sales performance, as mentioned already. The highlight in August 2013 was the 3.7% increase in employment generated by this branch, thanks to an increase in the recruitment of permanent staff (6.2%) as opposed to a decline in the recruitment of temporary workers hired through employment agencies (-9.6%).

The outlook in mining is mixed. Oil continued to exhibit important momentum, while coal has been affected by supply shocks that negatively influ-

Graph 27
Coffee Production
 (Quarterly and Annual Growth)



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

Coal production has been affected by supply shocks in the third quarter.

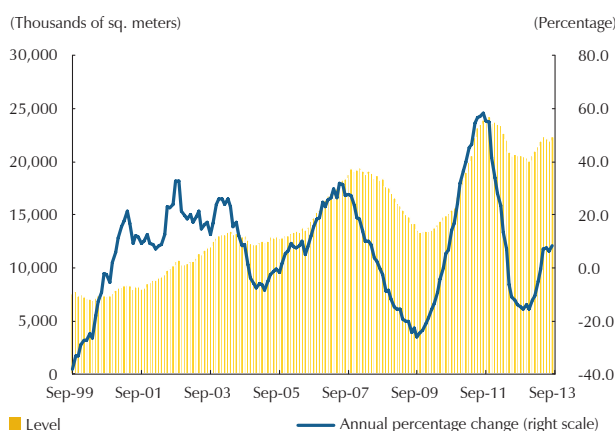
enced production during the third quarter. Although oil production came to 995 thousand barrels per day (mdb) in September, third-quarter production averaged one million fifteen thousand barrels per day, which implies 8.7% annual growth. This favorable performance is explained by improved transport conditions and stabilization of production at the various oil deposits compared to the previous year, coupled with a reduction in the problems with law and order that plagued production in 2012. As for coal, production this quarter was affected once again by supply shocks associated with work stoppages by Drummond employees. Drummond is one of the largest companies in the sector.⁶ Workers at the company struck on July 23, causing the shutdown of two mines and the company’s private port on the Caribbean coast, which would have negatively affected production during much of the quarter. According to calculations made by companies related to the sector, the daily losses could be as high as \$ 11 billion (b).⁷

In construction, the few indicators that are available suggest more favorable activity during the third quarter, at least in the case of building construction. Building permits continued to perform well, posting a year-to-date increase of 8.6% by August, following 7.6% and 6.3% annual growth in June and July, respectively⁸ (Graph 28). Cement production is accelerated,

going from an annual variation of 0.78% in the second quarter to 3.0% in July-August. As noted, this sector is expected to see important momentum supported by government stimulus and by the improved performance of building permits. Civil works, on the supply side, are also expected to experience positive growth similar to what was observed in the previous quarter and for the reasons mentioned already.

Despite the second-quarter recovery in the national accounts, as reflected in the figures published by DANE, manufacturing continued to show signs of weakening in recent months. According to figures from the Monthly Manufacturing Sample (MMS), the DANE industrial production index excluding coffee processing dropped 3.9% in August 2013,

Graph 28
Total Area Approved, According to Building Permits
(12-month accumulation)



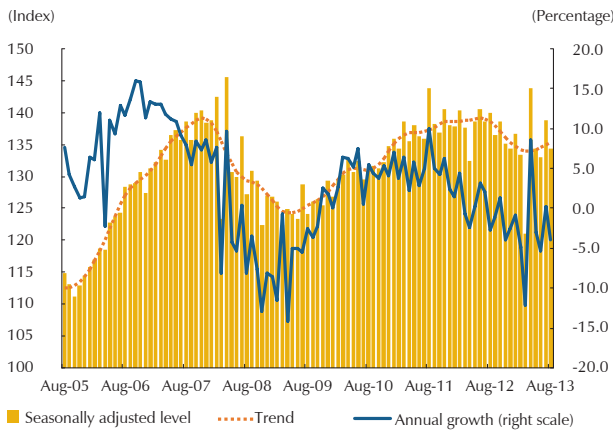
Source: DANE (77 municipalities); calculations by Banco de la República.

6 See <http://www.portafolio.co/economia/mintrabajo-convoca-arbitraje-finalizar-paro-drummond>

7 Consult: <http://www.portafolio.co/economia/costos-la-huelga-drummond>

8 Twelve months of growth are analyzed, since this series is highly volatile. The specific figure on the annual variation in the total number of building permits for the month of August was 22.6%, destined mostly to housing with an annual increase of 40.5%.

Graph 29
Industrial Production Index without coffee threshing
(Seasonally adjusted series, trend component and annual growth)



Source: DANE; calculations by Banco de la República.

bringing the year-to-date cumulative decline to 2.8% (Graph 29). In contrast, coffee processing continued to grow at high rates and its average annual expansion in July-August was 13.9%; which would offset some of the reductions in other sub-sectors. Likewise, with information up to that month, the FEDESARROLLO survey reported a slight drop in the indicators for orders and industry confidence; however, the trend component is stable. In other words, it shows no further declines, which could suggest a breaking point.

The sluggishness of manufacturing in Colombia coincides with the slow growth of industry in many developed and emerging countries during the last two years. Due to the poor performance of

global demand (for a number of years by now), various industries throughout the world have large surpluses of underutilized installed capacity, with a high degree of inventory accumulation. This tends to increase competition for Colombian firms in foreign markets and domestically as well, affecting their market share. According to the National Association of Colombian Businessmen (ANDI), local manufacturers perceived an increase in domestic-market competition from imported goods throughout the year. Regarding the international market, the figures for industrial exports from Colombia show a decline of 11.8% in volume, on average, during July and August.

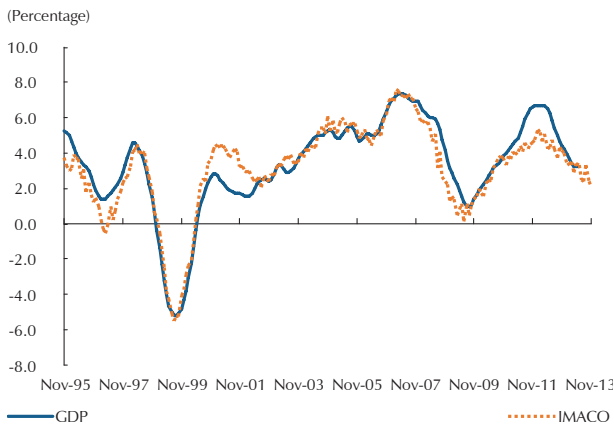
Technological change and consumption patterns constitute another factor that also helps explain the sluggishness in manufacturing in Colombia and in several other countries. The revolution in information technology has led to the generation of products and services that are replacing traditional goods that once represented an important share of production and demand. The publishing and paper industry is a case in point and has declined significantly in Colombia and around the world for a number of years.

Although the national account figures published by DANE for the second quarter show some recovery in manufacturing, the August monthly indicators continue to mirror significant reductions. This suggests the sector remains sluggish or has experienced somewhat of a setback. Accordingly, the expectation in this report, in terms of the national accounts, is that industry will expand only slightly in the third quarter, preventing further contraction thanks to the growth in the coffee processing, which would be very dynamic due to the important momentum in coffee production, as mentioned earlier. Therefore, this sector would continue to be the least dynamic within GDP.

Industry continued to contract in annual terms during July and August.

Considering all these factors, the forecast for GDP growth in the third quarter of 2013 is between 3.8% and 5.2%, with the most likely scenario being somewhere around the middle of that range. Agriculture and construction would continue to be the most dynamic branches. Mining would be above 4.0%, despite a possible decline in coal production. A slowdown in industry is expected with respect to the previous quarter and growth would continue to be limited. Nevertheless, the forecast range contemplates a great deal of uncertainty about how investment in public works and government consumption will perform.

Graph 30
Imaco: Leading Indicator for 5 Months of GDP^{a/}



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

The leading indicator of economic activity in Colombia (IMACO) (Graph 30), which is based on a variety of sector variables with information at August, signals year-to-date growth below what is projected the baseline forecast (See the GDP fan chart in Chapter IV). It is important to remember this methodology does not contain indicators for some sectors that are making an important contribution to growth (i.e., construction). However, they are considered in the baseline forecast, which means IMACO might be underestimating GDP growth in Colombia.

Box 2

Comparing Terms of Trade Indexes for Colombia

Aaron Garavito
David Camilo López
Deicy Cristiano
María Alejandra Hernández*

Colombia's terms of trade have changed in recent years, mainly due to variations in the international prices of the commodities it exports, such as oil, coal, ferronickel, gold and coffee. These changes usually have important implications for GDP, disposable income, savings, investment and tax revenue, among other key variables for the national economy. Consequently, they must be monitored carefully, using different methods of calculation.

Two methods to estimate terms of trade indexes (TTI)¹ are presented in this section, based on a calculation of export and import price indices. The first method is founded on the unit values in foreign trade information (IIT-FT). The second uses the producer price index as a source of prices for import and export goods (TTI-PPI).

Terms of Trade Indexes Based on Foreign Trade Data (TTI-FT)²

In this case, export and import unit values or price indexes are calculated with a two-month lag. The information used is taken from the Colombian foreign trade databases managed by the National Bureau of Statistics (DANE) and the Department of Revenue and Customs (DIAN). With respect to coverage, the transactions included in the indexes represent, on average, 94% and 88% of the total value of exports and imports between 1995 and 2013, in that order. This coverage is the result of selecting the

goods that are most representative, permanent in time, and have little volatility.

In terms of methodology, a chained Paasche-type (PT) index (P_T^{EP}) was used as follows:

$$P_T^{EP} = P_{(t-1;t-12)}^{EP} \times P_T^P$$

$$P_T^P \equiv \sum_i^n \left(\bar{\beta}_{i,T} \frac{P_{i,T}}{\bar{P}_{i,T-1}} \right)$$

$$\bar{\beta}_{i,T} = \frac{\bar{P}_{i,T-1} Q_{i,T}}{\sum_i^n \bar{P}_{i,T-1} Q_{i,T}}$$

Where $P_{(t-1;t-12)}^{EP}$ is the moving average of the chained index in the last twelve months and $P_{i,T}$ is the implicit price or unit value of the tariff item (i), which is defined as the ratio of the dollar value to the weight in kilograms exported or imported. $\bar{P}_{i,T-1}$ is the moving average of the last twelve months of the implicit price of the tariff item (i).

Price or unit value indexes based on customs statistics have certain advantages and limitations. The main advantages are their low production cost, the use of an exhaustive source of information that reflects the values actually negotiated in foreign trade, updated and significant coverage of foreign trade operations, and facility for breakdown by geographical areas and bilateral analysis. On the other hand, the methodology has a set of internationally recognized limitations, such as the combination of different types of goods in the same category, variations in the quality of the articles in the course of time, volatility of the information, discretion in determining the type of sample, imputations and deputation of the series. Yet, despite these disadvantages, the unit value indices are internationally accepted and widely used.

These limitations were taken into account and procedures were implemented to mitigate their impact on the indicators that were obtained. The highest level of detail for the products found in the export and import databases; namely, the ten-digit classification in the tariff schedule, was used to obtain more homogeneous implicit prices. The unit value for a particular tariff heading (P_i, T) is obtained by adding, ponderously, each of the implicit prices of their transactions. The implicit prices of each transaction are obtained by breaking down the value and traded quantity of a product by country of origin or destination, means of transport, and import or export agent.

* The first three authors are specialized professionals with the Technical and Economic Information Department (TFID); María Alejandra Hernández is a statistics professional with the same department. The opinions expressed in this section imply no responsibility on the part of *Banco de la República* or its Board of Directors. Las opiniones no comprometen al *Banco de la República* ni a su Junta Directiva.

1 It is defined as the ratio of the price of exports (PX) to the price of imports (PM): $ITI_t = 100 \times \left(\frac{PX_t}{PM_t} \right)$

2 For further details see "Aproximación a los Índices de Valor Unitario y Quántum del Comercio Exterior Colombiano" (Approximation to Unit Value and Quantum Indexes for Colombian Foreign Trade), Borradores de Economía, No. 680, *Banco de la República*, November 2011.

This breakdown makes it possible to generate more homogeneous implicit prices per product and is one of the steps to address the problem of changes in composition and heterogeneity particular to the source of information.

Moreover, the extreme values within each set of transactions were adjusted and intertemporal volatility was controlled. In the case of goods of greater value in foreign trade and with implicit prices that are highly volatile, the international price of the product or the PPI of the main country supplying the product (flowers, gold, aircraft, etc.) are used.

They were found to be a good approximation to the dynamics of prices in Colombian foreign trade, due to the consistency with indicators such as the foreign-trade price indexes of countries in the region and of Colombia's trading partners. However, obtaining indexes based on unit values should be complemented with foreign-trade price indices generated through specific surveys on international economic transactions of this type.

TT According to the PPI

In this case, the indicator is calculated monthly, with a one-month lag, and information from the DANE Producer Price Survey (PPI) is used. The export and import indexes are obtained by incorporating the PPI indexes, according to the two-digit international standard industrial classification (ISIC)³ used by DANE, weighted by their importance to foreign trade. Variable weights that capture the changes in the structure of the country's trade are used, specifically in moving average of order 3 to eliminate seasonality.

A chained Fisher index (geometric mean of the Paasche and Laspeyres indexes) is used to calculate the TTI-PPI. It adds the monthly change in prices for each division.⁴

$$IP_{X_t} = IP_{X_{t-1}} \times f(q_{t-1}, q_t, p_{t-1}, p_t)$$

$$f(q_{t-1}, q_t, p_{t-1}, p_t) = \sqrt{\frac{\sum_i^n (\alpha_{t-1}^i p_t^i / p_{t-1}^i)}{\sum_i^n (\alpha_t^i p_{t-1}^i / p_t^i)}}$$

Where α is the share of foreign trade corresponding to each division within the last twelve months.

$$\alpha_t^i = \frac{p_t^i q_t^i}{\sum_i^n p_t^i q_t^i}$$

The PPI survey⁵ has a fixed basket constructed according to the importance of the goods to foreign trade during the three year period from 2002 to 2004. The representativeness of imports during that period is close to 94.3%; for exports, it is 97.5%. DANE monitors prices monthly, using a non-probability sample design. Nevertheless, it also conducts a monthly analysis, based on price changes, to determine the minimum number of sources for each product in the PPI. As to the system of weights, two structures are used to calculate the PPI: flexible weights at classification levels below the CPI subclass (article and prices) and a fixed structure based on Laspeyres-type indexes applied to the other levels in the breakdown.

The prices reported in the PPI survey have the following characteristics. If an item is imported, two different prices are used, depending on whether or not it is involved in some sort of transformation process, in which case the reported price is the one entered monthly on the books under production costs. If there is no transformation, the factory sale price (cost, insurance and freight- CIF) is reported. In the case of export products, the FOB (free on board) price is recorded.

Some of the advantages of the TTI-PPI are timely data,⁶ monthly availability, and prices for homogenous products with distinguishable features for continuous identification and tracking. It also captures changes in foreign trade through a structure with weights that are updated monthly.

3 Colombian exports are classified into 23 divisions and imports into 25 in the latest PPI update.

4 This alternative is based on the fact that a fixed base index can produce undesirable biases in the aggregate as the measure moves away from the base year. The main criticism is its interpretation of the long term, since it is impossible to compare the levels of the indexes in two different periods.

5 The descriptions of that survey, as provided herein, pertain to the PPI method since 2007. It is important to note that the TTI-PPI is constructed for a period that encompasses four different methods for calculating the PPI, which have specific considerations in each period. Their major difference lies in the coverage and the base year used to define the basket of goods and the weights.

6 The lag in the figures is only one month for prices and two for weights.

On the other hand, the main disadvantages of the TTI-PPI deal with the fact that the exact contribution of each component cannot be determined because the indicator is calculated in variations, the fixed reference basket can lose representativeness as the measurement moves further away from the base period, and the changes in the structure of foreign trade are captured only in part by updating the weights, which have a certain level of aggregation. Moreover, the prices of imported goods for processing include marketing margins, internal shipping costs, and tariff and non-tariff costs, among others.

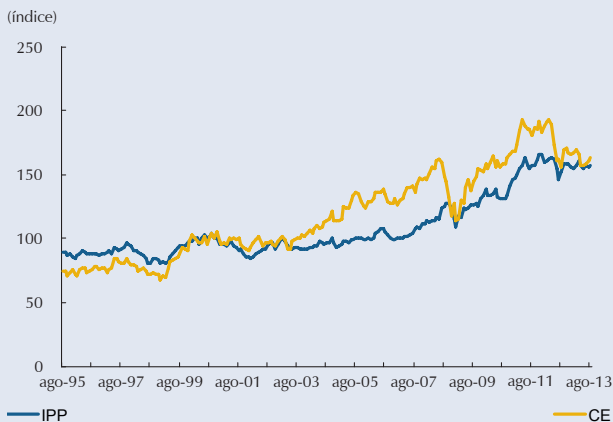
Comparison between the Two Methodologies and their Results

The export and import price indexes and the TTI estimated with both methodologies are illustrated in Graphs B2.1, B2.2 and B2.3. Graph B2.1, in particular, shows that both the TTI-PPI and the TTI-FT achieved their maximum value between April 2011 and April 2012. The TTI-FT then posted an important decline as of May 2012, in contrast to a lesser reduction in the case of the TTI-PPI.

There are several reasons for the differences between the two indicators. The main one is the source of information used in each case, as mentioned earlier. In effect, one sees differences in the type of prices, the reference basket, and homogeneity of the item in the course of time.

As for the prices of imported goods, FOB prices are used for the TTI-FT and CIF prices for the TTI-PPI. In some

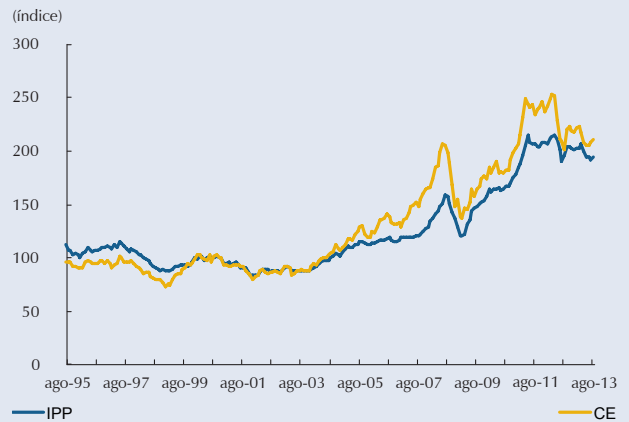
Graph B2.1
Terms of Trade Index
(2000 arithmetic average = 100)



Sources: DANE and DIAN; calculations by the authors.

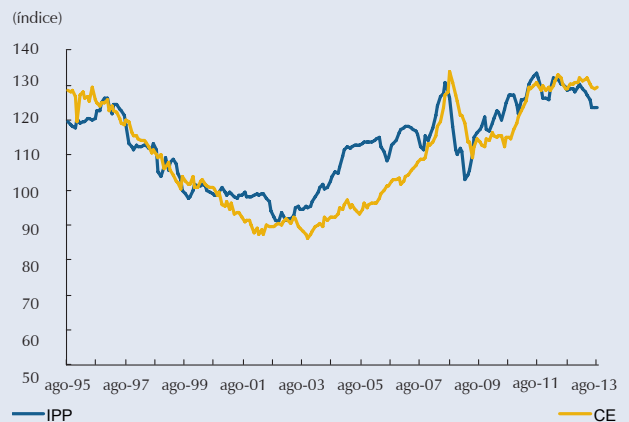
cases, the TTI-PPI also includes marketing margins, internal shipping costs, and tariff and non-tariff costs, etc. In

Graph B2.2
Export Price Index
(2000 arithmetic average = 100)



Sources: DANE and DIAN; calculations by the authors.

Graph B2.3
Import Price Index
(2000 arithmetic average = 100)



Sources: DANE and DIAN; calculations by the authors.

turn, there are discrepancies associated with the basket used in each of the methodologies.

In the case of the TTI-PPI, the information as of 2007 comes from a base fixed basket for 2003-2005. This can imply coverage problems for the goods actually traded and generate biases in the measurement.⁷ Furthermore, there is no certainty in terms of coverage for companies

7 For example, ship and aircraft imports and exports were excluded when calculating the system of fixed weights based on the structure of the supply-use balance of goods in 2000, as provided by the System of National Accounts (SNA). (See the methodology for the producer price index by DANE, 2007).

and transactions concerning the values actually exported and imported by the country. The TTI-FT, in contrast, uses a basket that is updated continuously. This ensures the representativeness of foreign-trade transactions during the course of time.

Additionally, the TTI-FT shows changes in the quality and variety of products over time, while the TTI-PPI reports homogeneous products. The foregoing is reflected in the added volatility of the TTI-FT. Also, the TTI-PPI does not reflect the dynamics of international prices for the more homogeneous product groups (e.g., imports of refined petroleum products).

As to methodology, an important difference is the level of aggregation at which relative prices and weights are calculated. The TTI-FT is constructed at the most disaggregated level possible, while the ITI-IPP is estimated at the division level, but these divisions maintain an internal structure of fixed weights. Accordingly, a change in the share of goods within each division would not be reflected in the TTI-PPI weights, but it would have an effect on the weights in the TTI-FT. The chained index that is used (Fisher in the case of the TTI-PPI and Paasche for the TTI-FT) does not appear to be an important source

of divergence between the two indicators. In fact, an exercise was done using a chained Fisher index to calculate both the TTI-PPI and the TTI-FT, and the differences were maintained.⁸

In short, the methodologies described herein have advantages and disadvantages due to the limitations in their sources of information. In theory, foreign trade prices should be captured through surveys, which should show better results than those obtained with the implicit prices registered in the foreign trade databases. However, in the Colombian case, the PPI survey with which these prices are obtained has the set of limitations mentioned already, which may lead to a bias in the measurement. Therefore, both indicators should be monitored continuously, taking into account their concurrence with the economic environment in Colombia and internationally.

8 For further details, see “Construcción del índice de términos de intercambio para Colombia” (Constructing a Terms of Trade Index for Colombia), Borradores de Economía, No. 639, *Banco de la República*, January 2011.

III. RECENT DEVELOPMENTS IN INFLATION

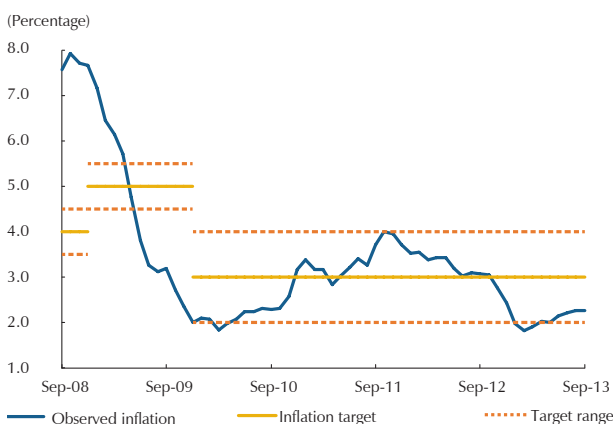
Annual consumer inflation during the third quarter of 2013 rose again slightly, as anticipated in the previous edition of this report.

Both total and core inflation remain below the midpoint of the target range (2.0% to 4.0%).

Between July and September, upward pressure on consumer prices was low and originated mainly with accumulated depreciation of the peso and the prices for some perishable foods.

Neither costs nor demand exerted significant pressure on consumer prices.

Graph 31
Total Consumer Inflation



Sources: DANE and Banco de la República.

Annual consumer inflation was 2.27% in September, up 11 bp compared to June and very close to the forecast published in the last quarterly report. After reaching a low in February of this year (1.83%), annual inflation has stayed on a slight upward trend during 2013 (Graph 31 and Table 6). Cumulative inflation from January to September was 2.16%. This is below the record for the same period last year.

As has been the case in the last three months, inflation continued to face very little upward pressure. The most relevant pressure on this occasion was from depreciation of the exchange rate, which gradually began to pass through to consumer prices

in the third quarter, particularly for tradable goods and services. The agricultural and trucking strikes in August and September also exerted tem-

Table 6
Consumer Inflation Indicators
(At September 2013)

Description	Dec -11	Mar -12	Jun -12	Sept -12	Dec -12	Jan -13	Feb -13	Mar -13	Apr -13	May -13	Jun -13	Jul -13	Aug -13	Sept -13
Total														
Excluding food	3.13	2.95	2.80	2.87	2.40	2.11	2.08	2.11	2.20	2.28	2.48	2.45	2.46	2.36
Tradables	0.80	0.68	1.01	1.09	0.77	0.73	0.71	1.13	0.98	1.06	1.10	1.27	1.39	1.34
Non-tradables	3.64	3.71	3.62	4.02	3.92	3.94	3.84	3.85	3.83	3.74	3.78	3.90	3.78	3.70
Regulated items	5.81	4.94	3.92	3.31	1.91	0.67	0.71	0.19	0.86	1.25	1.98	1.37	1.46	1.24
Food	5.27	4.56	4.22	3.63	2.52	1.69	1.19	1.41	1.57	1.29	1.34	1.64	1.77	2.05
Perishables	7.73	5.18	-2.04	-2.35	-3.90	-5.00	-5.58	-1.86	0.41	2.57	2.44	4.02	5.51	5.94
Processed	4.50	3.69	5.12	4.33	2.83	2.19	1.60	1.25	0.91	-0.14	-0.11	0.06	-0.10	0.18
Eating-out	5.59	5.87	5.52	5.21	4.90	3.88	3.60	3.21	3.29	3.33	3.51	3.47	3.55	3.74
Core inflation indicators														
Excluding food	3.13	2.95	2.80	2.87	2.40	2.11	2.08	2.11	2.20	2.28	2.48	2.45	2.46	2.36
Core 20	3.92	3.76	3.56	3.71	3.23	2.95	2.78	2.78	2.79	2.72	2.83	2.81	2.78	2.79
CPI excluding perishable foods, fuel and public utilities	3.18	2.99	3.23	3.33	3.02	2.76	2.60	2.51	2.34	2.16	2.14	2.14	2.19	2.19
Inflation excluding food and regulated items	2.38	2.38	2.48	2.74	2.55	2.54	2.48	2.67	2.60	2.59	2.63	2.77	2.75	2.69
Average of all the indicators	3.15	3.02	3.02	3.16	2.80	2.59	2.49	2.52	2.48	2.44	2.52	2.54	2.54	2.51

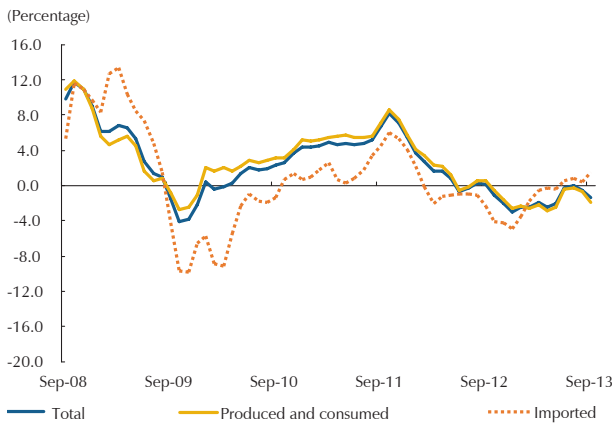
Source: DANE; calculations by Banco de la República.

porary inflationary pressure, which was felt particularly in the prices for certain foods.

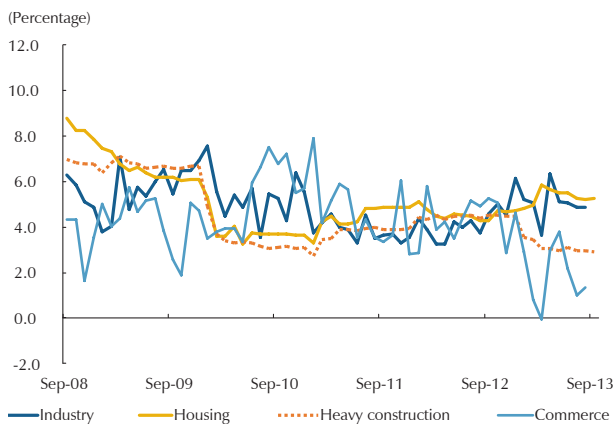
The other inflationary factors remained in check, as has been the case for several quarters. Accordingly, no demand-pulled pressures were apparent in the third quarter, as suggested by the fact that the output gap would have stayed in slightly negative territory, as indicated in Chapter IV of this report.

On the other hand, international prices of most commodities and foods remained stable or declined compared to the levels observed during the same period last year. This includes the price of oil, which has had a considerable impact on the IPC for regulated items, via the domestic price of gasoline, utilities and production costs.

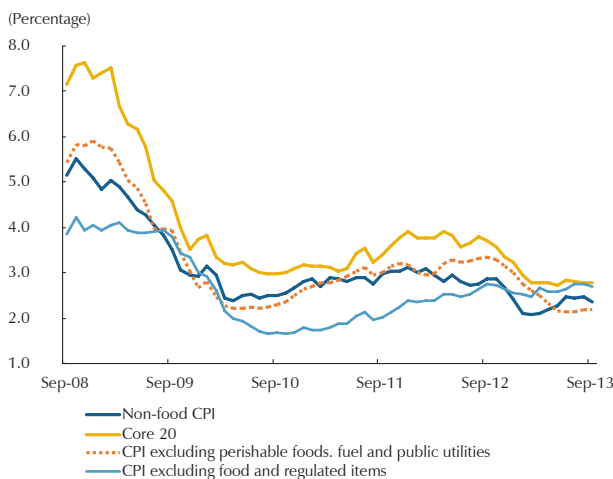
Graph 32
PPI by Origin
(Annual change)



Graph 33
Nominal Wages
(Annual percentage change)



Graph 34
Core Inflation Indicators



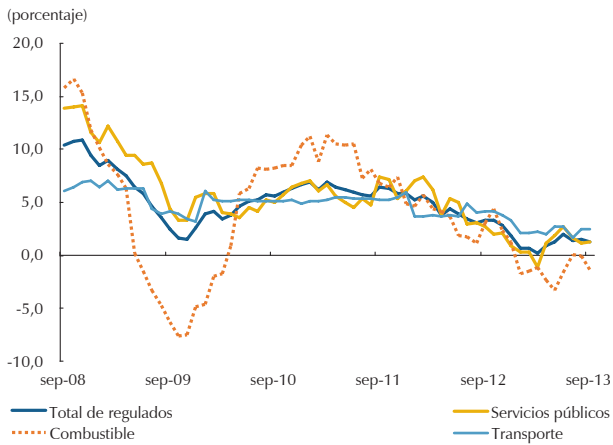
With regard to the latter, non-wage costs declined again in the third quarter, as suggested by the annual change in the producer price index (PPI). This variable emerged from negative territory in the first half of the year; however, it fell again in the third quarter, closing out September at -1.32% (Graph 32). This was due to reductions in the PPI for goods produced and consumed in the country, since the annual change in the PPI for imported goods increased due to cumulative depreciation of the peso as of mid-January.

Wage cost pressures in the job market during the third quarter were low as well. Wages continued to exhibit moderate adjustments, particularly in commerce and heavy construction. The wage hikes in industry and housing construction were the only ones (close to 5.0%) above the target range for inflation; however, they did not exert inflationary pressure, given the increase in productivity and the reduction in payroll taxes (Graph 33). It is important to bear in mind that the decline in payroll costs (charged for ICBF and SENA), which took effect last May as a result of the latest tax reform, would operate in favor of lower in the wage costs facing companies.

A. CORE INFLATION

The average of the four core inflation indicators regularly monitored by *Banco de la República* remained stable at around 2.5% throughout the third quarter. An individual analysis of the various indicators shows they all are below the inflation target, with Core 20 (2.8%) being the highest. The CPI excluding staple foods, fuel and utilities (2.2%) is the lowest level. The changes in the various indicators during the quarter were moderate, with a five (5) bp increase in both the CPI excluding perishables, fuel and utilities, as well as the CPI excluding food and regulated items (2.7%). In contrast, the CPI excluding food (2.4%) and the Core 20 (Graph 34) declined slightly.

Graph 35
Annual CPI for Regulated Items and Components thereof



Source: DANE; calculations by Banco de la República.

The slight drop in the non-food CPI between June and September is associated primarily with a slowdown in the regulated component. Its annual growth went from 2.0% in June to 1.2% in September (Graph 35), which was more than anticipated in the previous Inflation Report. As for regulated items, public utilities (1.2%) and to a lesser extent transport (2.5%) posted lower annual adjustments compared to those observed last June (Table 6).

The annual variation in the CPI for fuel rose slightly during the last three months, but remained in negative territory (-1.4%). Several hikes in this item were recorded during the quarter compared

to the level in June, but they were minor and might be associated with the increases in international fuel prices and depreciation of the peso since early this year. The situation with residential natural gas was similar. Even so, international oil prices between June and September did not exceed those observed during the same period in 2012, which would explain the low annual price adjustments for natural gas and gasoline in Colombia.

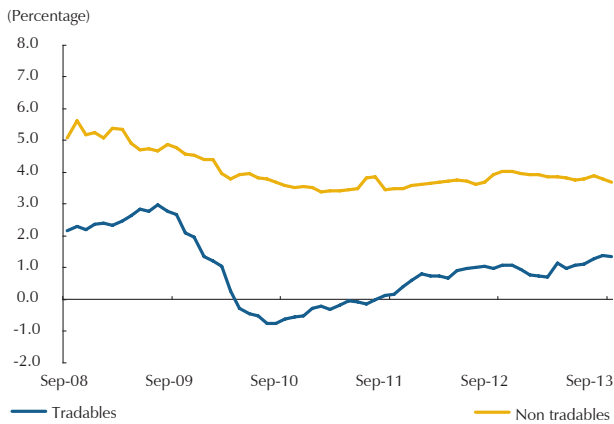
The annual slowdown in the CPI for public utilities is explained by water and sewage services, which experienced rate cuts. In the two months from August to September, the Bogota Water and Sewer Company (EAAB) began to apply the rate reduction announced by the city's mayor in June. In this case, the reduction was higher than originally anticipated (11%).⁹

The substantial variation in the CPI for electricity during several quarters continued in recent months. This volatility, which stems primarily from generating and distribution charges, is particularly noticeable in the city of Cali (see Box 3).

Non-tradables were another segment of the CPI basket that contributed to the slowdown in inflation (3.7%), having dropped 8 bp in annual growth during the quarter (Graph 36). Less of an increase in rents, from 3.7% in June to 3.6% in September, was a predominant factor in that respect. This item has slowed little by little since early this year and carries considerable weight in the CPI basket (18.6%). This same period also saw a slowdown in items related to non-tradable health and transportation services, among others (Graph 37).

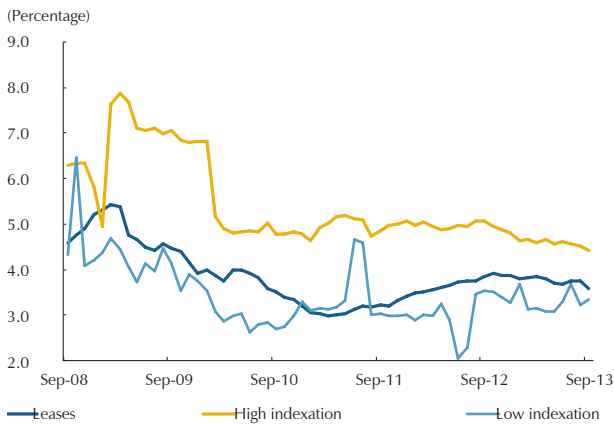
⁹ In this respect, see http://www.eltiempo.com/colombia/bogota/reduccion-en-la-tarifa-del-servicio-de-aseo_13110113-4

Graph 36
Annual Tradable and Non-tradable CPI Excluding Food and Regulated Items



Source: DANE; calculations by Banco de la República.

Graph 37
Annual Non-Tradable CPI



Source: DANE; calculations by Banco de la República.

Graph 38
Annual Food CPI



Source: DANE; calculations by Banco de la República.

Tradables were the only major non-food CPI sub-basket to generate upward pressure on inflation during the third quarter, having gone from 1.1% growth in June to 1.3% in September. This last increase was more than expected. The striking depreciation of the peso in the last two quarters was incorporated into the momentum in this component of the basic family basket. Analysts and the market expected this rise in tradables, given the time it takes for changes in the exchange rate to pass through to consumer prices in Colombia. Other minor upward pressure on this segment of the basket would be coming from a mixed tariff for apparel and footwear. These measures have been applied since last March.¹⁰

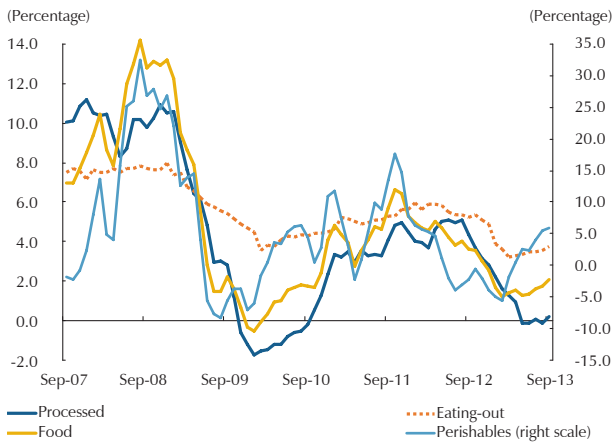
B. THE FOOD CPI

In general, food prices tended to rise throughout the third quarter, varying annually from 1.3% in June to 2.1% in September, having risen slightly more than anticipated in the June edition of this report (Graph 38). As shown in Graph 39, prices for fresh foods or perishables (5.9%) have pushed up food inflation since March of this year. The main increases in this subgroup during the last quarter were in the fruit segment.

Despite the build-up in the food group during the last two quarters, which may be due to the normal production cycle, the annual rate of adjustment in prices has been less than in similar surges during previous years. One reason might be that supply performed better than in past years, thanks partly to good weather. Production costs have changed little, especially for agricultural input, and this might have contributed to the lower price hikes. This has allowed for relative prices for perishables (measured in relation to the non-food CPI), which

¹⁰ See Decree 0074 issued by the Ministry of Commerce Industry and Tourism on January 23, 2013.

Graph 39
Food CPI, by Groups



Source: DANE; calculations by Banco de la República.

are lower, on average, than those observed in 2011 and 2012.

The other two subgroups in the food basket: processed foods (0.2%) and meals outside the home (3.7%), experienced no major changes during the third quarter (Graph 39). The annual change in the CPI for processed food declined throughout the first half of the year, benefiting from the reduction in the value-added tax (VAT) on farm machinery and agricultural input, sugar, chocolate and pasta, among other items, as a result of the new tax reform enacted late last year. This is a one-time downward shock. It should be felt throughout 2013 and disappear in early 2014. The reduction in indirect taxes also applies to meals outside the home.

In the case of perishable food, a percentage of which is imported or uses imported input, cumulative depreciation of the peso against the dollar so far this year has had little impact on domestic prices. This would be related to the reductions in international food prices, as shown in Chapter I of this report, which would have offset the upward effect of the exchange rate.

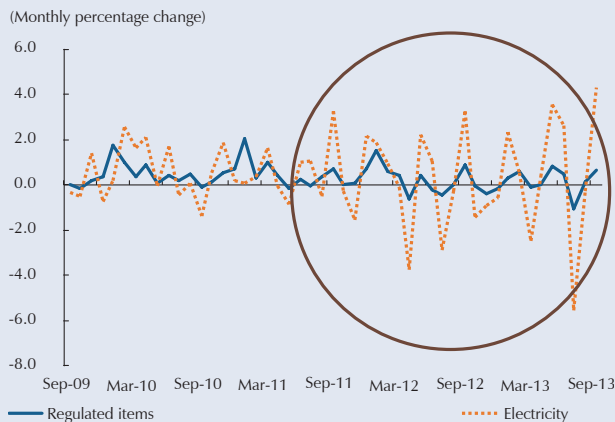
BOX 3

Why is there Volatility in the CPI for Electricity?

Edgar Caicedo García
Cristhian H. Ruiz Cardozo*

The regulated component of the consumer price index (CPI) has been more volatile in the last few years, making it difficult to forecast. The behavior of electricity rates, in particular, which account for 18.8% of the regulated component and 2.8% of total CPI, has lent added volatility to both the regulated component and total CPI (Graph B3 1). The reasons for that movement are examined in this section.

Graph B3.1
CPI for Regulated Items and Electricity



Source: DANE; calculations by the authors.

The Energy and Gas Regulatory Commission (CREG) is the agency responsible for monitoring electricity rates in Colombia. These are defined in dollars per kilowatt hour (\$ / kWh), based on the unit cost of service delivery (CU), which is defined as:¹

$$CU = G + T + D + C + PR + R, \text{ where:}$$

* The first author is an inflation expert with the Department of Programming and Inflation. The second is a student intern with the Technical and Economic Information Department. The opinions expressed in this section imply no commitment on the part of *Banco de la República* or its Board of Directors.

1 Determining the ultimate rates for different users depends not only on the cost of providing the service, but also on the subsidies to be applied and the contributions to the different income brackets. For more on this point, see CREG Resolution 119 / 2007 (which defines the formula) and Law 142/ 1994 (Articles 87, 89 and 99) and Law 143/ 1994 (Articles 60, 23, Point h, and 47), which define the subsidies and contributions for the delivery of electricity.

CU is the unit cost; G is the cost of power purchased from the marketer and represents the cost of energy production; T is the cost of transportation, which is the price paid to the transport energy from the generating plants to the regional transmission networks; D is the amount paid to transport energy from the substations of the National Transmission System to the end user; C is the cost of marketing the energy; PR is the cost of technical losses that occur in the generating and transport process, and R are the constraints and costs associated with generating electricity.

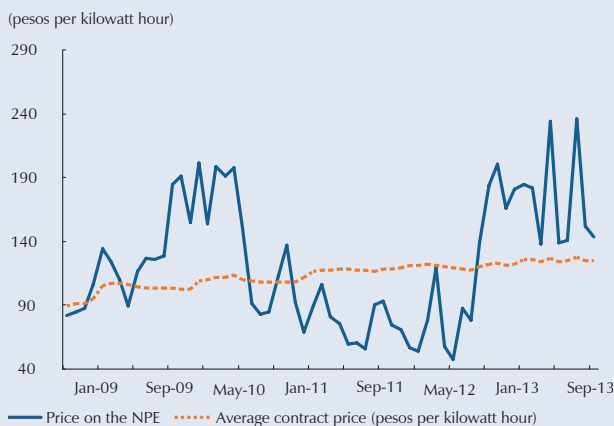
The two items that contributed the most to the CU during the past year were: distribution (36.42%) and generation (35.6%); followed by marketing (12.49%), transmission (6.19%), restrictions (5.61%) and losses (3.69%). The contribution of these items in the CU has remained stable in recent years, with generating and but particularly distribution being the most volatile components in the rate formula. Let us examine this variability.

In the case of generation, the purchase price of electricity for marketers represents a fixed cost when it is acquired through a long-term contract, or a variable cost when purchased on the spot market of the Power Exchange.² Purchases on the exchange are precisely the reason for the variation in the generation component of electricity rates, as shown in Graph B3.2. The formation of prices on the exchange is determined daily by the reconciliation between supply and demand; however, it also reflects changes in the weather, attacks on electrical facilities, and even the price of fuel (gas and coal) used to run the country's thermal power plants.³ For example, during El Niño weather in late 2009 and early 2010, the level of reservoirs declined, forcing the electrical system to replace hydroelectric power (which is less expensive) with thermal power (which is more costly). This raised the cost per kilowatt for energy traded on the exchange and the price paid by consumers.

2 The main factors that determine the price of generating electrical energy include, among others, the commercial demand from marketers, the weighted average cost of energy purchased through bilateral contracts, and the price of electrical energy purchased on the Colombian Power Exchange by the distributor. The Colombia Power Exchange was created on July 20, 1995 to modernize the electrical energy sector and to make way for free competition and private participation.

3 Generation costs are updated monthly, taking into account the criteria outlined in CREG Resolution 119/ 2007.

Graph B3.2
Price of Energy on the National Power Exchange (NPE) and Average Contract Price



Source: XM-ISA.

The distribution component of the electricity rate includes the costs incurred by the network operators (such as Codensa, EPM, EBSA) for investment in infrastructure, administrative expenses, operation and maintenance. Each network operator (NO) establishes a single charge for power distribution, which is indexed monthly to the variation in the producer price index (PPI). Moreover, due to regulatory policy, the network operators are now unifying their distribution charges in each of the five

distribution areas (DA) into which the country has been divided: north, south, west, east and central.⁴

Once the DAs were defined, two phases were initiated to unify the distribution charges: one by departments and another by regions. This means establishing a distribution charge for each DA, the settlement of which implies the users in DAs with lower approved distribution charges must provide additional resources to reduce the amount to be paid, for the same distribution charge, by users in the other DAs where there is a deficit.

The volatility comes from trying to balance the huge differences in the distribution charges of the DAs. What is happening in the Western DA is a clear example of this situation. So far during 2013, the distribution charges in Popayan have been three times higher, on average, than those in the city of Cali (Table B3.1). Both these cities, according to the regulations, must include the unified distribution charge for the western zone in their end rates. However, this is a very volatile area.

⁴ See CREG Resolution 058/ 2008 for a more detailed explanation.

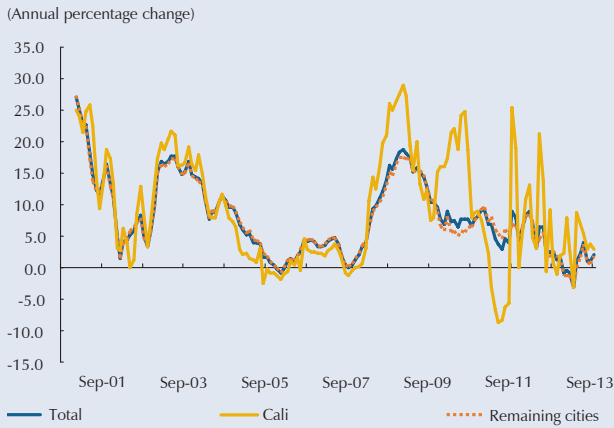
Table R3.1
Distribution Charges (pesos per kilowatt hour): Western DA in 2013

Month	Nariño	Tuluá	Pacífico	Popayán	Cali	Cartago	Cauca (Municipalities)	Unified Charge (pesos per kilowatt hour)
January	143.37	130.32	189.34	278.45	91.36	97.38	216.47	135.1
February	140.86	127.91	186.5	280.5	89.23	95.21	216.47	88.63
March	140.51	128.61	187.16	274.52	91.84	95.92	214.08	134.44
April	141.99	130.08	188.73	276.55	93.25	97.33	215.7	181.81
May	141.56	129.6	188.47	277.66	92.64	97.33	215.54	135.76
June	140.27	129.4	188.09	275.58	90.66	102.72	215.07	91.48
July	140.11	129.22	188.02	247.49	90.4	102.72	215.06	134.73
August	141.2	130.29	189.23	265.15	91.04	102.29	215.06	178.9
September	141.83	129.23	188.17	265.15	91.04	102.29	216.29	135.58

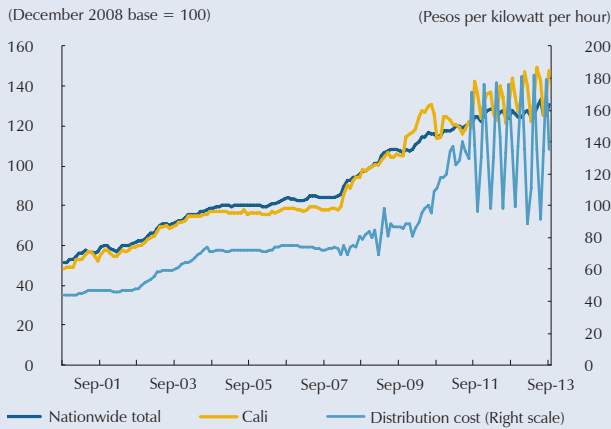
Source: XM-ISA; calculations by the authors.

Graph B3.3

A. ICPI for Electrical Energy



B. CPI for Electrical Energy and Western DA Distribution Cost



Sources: DANE, CREG and XM-ISA; calculations by the authors.

Consequently, Cali is the city that has contributed most to the volatility in the CPI for electrical energy (Graph B3.3, Panel a), given the enormous irregularity in distribution costs (Graph B3.3, Panel B). Also, the company supplying electricity in Cali (Emcali) entered bankruptcy twelve years ago and the city did not regain control of the company until mid-2013. The financial difficulties Emcali had in acquiring power through contracts caused it to begin purchasing large amounts of energy on the power exchange in recent years, transferring the volatility of this short-term market to the end price for consumers in Cali.

In short, the formula for electrical energy rates incorporates all the electricity production and marketing chains (generation, transmission, distribution and marketing). The value of electricity bills includes compensation for each link in the chain. The rates depend on a number of factors, such as the CPI (which indexes part of the marketing cost), the PPI (which indexes part of the distribution cost), the availability of resources to generate hydroelectric and thermal power (mainly water and gas), regulatory changes made by CREG, and the law of supply and demand in the market (the power exchange).

The sharp changes in the CPI for electricity during the past two years are due to the generation component of the rate formula (affected by fluctuations in the power exchange) and by the distribution component (affected by rate unification in the regions). In addition, Cali is the city that has transferred the most volatility to the CPI for electrical energy. This is associated with unification of the distribution charge in the western DA and the fact that Emcali entered bankruptcy in 2001, obliging it to buy massive amounts of energy on the power exchange in recent years.

IV. MEDIUM-TERM FORECASTS

The forecasts for economic growth suggest the Colombian economy will expand in 2013 at a rate close to the one on record for last year. Good economic performance is expected for 2014.

Next year, growth in Colombia will benefit from a further increase in the growth of its trading partners, relatively high terms of trade, better job conditions, and expansive monetary and fiscal policies.

For the remainder of 2013 and in 2014, the upward pressure on prices is expected to be low. Annual consumer inflation would stay under 3.0%, but within the target range.

A. ECONOMIC GROWTH

The 2013 and 2014 GDP growth forecasts presented in this report are not much different from those in the published in the previous edition. The growth anticipated in the productive apparatus during the remainder of the year, in real terms, is slightly above potential growth, and the economy is expected to perform well next year, provided the uncertainty and risks in the external environment do not increase and the momentum in government spending and investment in public works continues.

In light of what was observed in the first half of the year and what is anticipated for the second, private consumption during 2013 as a whole will expand at rates close to the average for the last decade. At the end of the

Bank lending is expected to end the year with double-digit growth rates, which would continue to support a portion of private spending.

year, the momentum will continue to come from very low inflation. Coupled with real interest rates that have been lower, on average, than those on record since mid-2012, this implies an increase in the purchasing power of household income. In addition, transfers of worker remittances are up slightly so far this year, and conditions on the job market suggest a favorable scenario for household spending to grow at an acceptable rate. Bank lending is expected to end the year with double-digit growth rates, which would continue to support a portion of private spending.

The increase in private investment during 2013 as a whole, apart from investment in the construction of buildings and civil works, would be less than in 2012. The good juncture for investment in construction, which will continue up to end of year, would not entirely offset the reduced growth in the other items that make up private investment. The weakness observed in manufacturing since last summer has slowed investment growth in that sector, as reflected by the development of imports, in dollars, of capital goods throughout the year in the form of machinery and equipment. Similarly, the drop in imports of transport equipment suggests the growth of investment in goods of this type would be negative for all of 2013.

In terms of GDP by branch of economic activity, construction and agriculture are expected to be the fastest growing sectors in 2013, in that order, expanding at rates above the increase in the economy as a whole. In contrast, the poorest performing sector would be industry. The uncertainty about how this sector will perform remained high towards the fourth quarter; however, it is expected to end the year with positive growth, thanks to coffee processing. Nevertheless, the increase would be low due to the slow recovery that is anticipated, as mentioned in Chapter II. Other sectors such as commerce and social, community and personal services would grow at an annual rate slightly above 4.0% for 2013 as a whole.

According to the baseline forecast, a positive growth rate throughout 2013 is expected for the sub-branch that includes building construction, surpassing the average increase observed in the first six months of the year (8.9%), since government programs to construct low-income housing are expected to have more of an impact during the second half of 2013.¹¹ On the other hand, the most likely scenario for civil works is an extension of the second-quarter levels throughout the rest of 2013. This would imply a slowdown in the third and fourth quarters; yet, the contribution of this sub-branch would still be important to the economy.

Construction and agriculture will be the branches of economic activity that would have grown the most in all of 2013.

¹¹ In addition, a positive impact on growth is expected in the third quarter due to a low base of comparison from the same period last year (the contraction between July and September 2012 was 10.6%).

Oil production would continue to be slightly over one million bpd by the end of 2013.

Agriculture is another sector that would continue to be quite dynamic during the remainder 2013, thanks to coffee. A significant build-up compared to last year is anticipated throughout all of 2013. As mentioned in Chapter II, the production figures for Colombian coffee so far this year point to an increase of about 40%; which is explained by the fact that nearly 200,000 additional hectares returned to productive status in 2013, as a result of a renovation plan carried out in past years. Consequently, it is estimated that 80% of the coffee land will be producing by the end of the year.

As to the baseline forecast with respect to mining in 2013, this sector is expected to grow only slightly more than the economy as a whole (4%), since the build-up in the oil sector is being weakened by the drop in coal production. The most likely scenario in the case of oil is that production levels in the next three months would remain near the average observed between July and September. If so, average annual production should be around one million eight thousand barrels of crude per day, which comes to an annual 7.0% increase compared to the figures for 2012.

The estimate for coal production is lower compared to what it was in the previous edition of this report. In fact, given the supply shocks witnessed so far this year, the government reduced the production target, which was initially 94 million tons. The new official estimates referred to in this report suggest production in 2013 as a whole would be around 84 m. tons, compared to 89 m tons in 2012.¹² This implies a decline of 6.0% with respect to last year.

The outlook for momentum abroad in 2014 is an important consideration when determining the forecast range for GDP growth. According to the balance-of-payments scenarios described in Chapter I of this report, Colombia's major trading partners are expected to see more economic growth in 2014. If this turns out to be the case, external demand for Colombia's non-traditional exports would continue to recover, representing a boost to economic activity in the country. It is important to emphasize that the downside risks for the future are associated mainly with the uncertainty generated by the fiscal and monetary policy situation in the United States.

Oil and coal prices will continue to make exploration and development in the mining-energy sector profitable during 2014.

In addition, domestic demand will continue to be bolstered by terms of trade that are expected to remain high, despite some reductions in export commodity prices, as noted in Chapter I. In this case, prices for products such as oil and coal would continue to make exploration and development in the mining-energy sector profitable, fueling production projects in this

12 See http://www.larepublica.co/economia/1%C3%ADos-en-la-miner%C3%ADa-llevar%C3%A1n-producci%C3%B3n-de-carb%C3%B3n-menos-de-84-millones-de-toneladas_73556

Investments made during 2013 and in past years in sectors such as mining and agriculture (especially coffee) will permit supply conditions in the economy to increase during 2014.

branch of the economy over the next year. Investments made in 2013 and during past years in sectors such as mining and agriculture (especially coffee) allow for an increase in supply conditions in the economy during 2014. Therefore, considering the way the productive apparatus in Colombia is linked, this could mean the performance of other sectors, such as transport and commerce, would benefit as well. Investment in the construction of civil works would account for an important share of GDP in 2014, taking into account prospects for the start-up of major highway construction projects referred to as fourth generation initiatives.

As for government consumption, the increase of 7.5% in the country's general budget for 2014 and a better balance with respect to budget performance (especially in the areas of housing, and science and technology) suggest that end spending by the government also will contribute significantly to growth in output.

With regard to family spending, there is evidence to suggest private consumption will increase slightly more than on average for the last decade. This outlook is based on the more expansionary monetary policy measures taken as of the second half of 2012 and until early this year, which meant low interest rates that would benefit the momentum in domestic demand and activity real, considering the normal lag with which monetary policy operates. On the other hand, current conditions on the job market and expectations that this trend will continue into late 2013 and in 2014 point to an enabling environment for household spending to increase at a good pace. Added to this is an inflation rate that is expected to end at low levels in 2013 and should not pick up significantly in 2014. This benefits the purchasing power of Colombian family income and also favors real growth in family spending.

As for the different branches of activity, construction and agriculture are expected to continue to be important in 2014, while mining would recover its momentum, again becoming one of the sectors that contribute the most to GDP growth in Colombia. Industry, on the other hand, should start to report growth rates that are positive and higher than in 2013.

In construction, the culmination of priority housing programs and the increase in the number of slots for subsidized interest rates on mortgage loans, continue to bolster performance in this sector, although to a lesser degree than was forecast for the end 2013. As for civil works, the announcements on investments in road infrastructure and mining, among others, also suggest good performance.

Agriculture, spearheaded by the coffee sector, would bolster Colombia's economic growth again in 2014 and to an important degree. The expecta-

Private consumption will increase by slightly more than the average rate for the last decade.

An additional 5.0% increase in oil production is estimated for 2014.

Growth during all of 2013 will stand between 3.5% and 4.5%, with 4.0% as the most likely figure. The range for 2014 was kept at 3.0% to 5.0%, with the most likely forecast being above 4.0%.

tion is that consolidation of all the hectares used to produce coffee (the remaining 20%), coupled with the increase in productivity¹³ generated by the land renewal program, will allow for important and sustained growth in coffee production.

The forecast for mining, in general, is that all the sub-sectors will accelerate compared to last year, backed by performance of a good portion of the projects and investments undertaken in recent years. Start-up of the “Bicentennial” pipeline and other works that would facilitate oil transport are an example. An additional increase of 5.0% in oil production is estimated for 2014 (up to 1,070,000 barrels per day, on average); this is consistent with the BOP baseline scenario discussed in Chapter I. Additionally, coal would have a low base of comparison in 2013, since the two largest coal producers faced problems in the second and third quarters associated with labor strikes and environmental licenses. These difficulties are not expected to happen again in 2014.

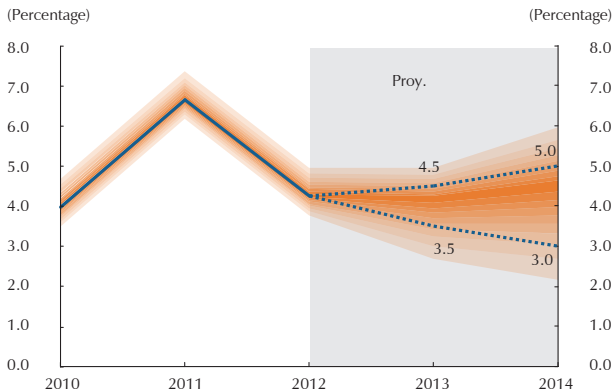
Finally, with regard to manufacturing, the low basis of comparison from the previous year, coupled with the anticipated recovery in global demand, as mentioned in the most likely international scenario, suggest growth in this branch of the economy will be more favorable in 2014 than in 2012 and 2013. Furthermore, the impact of the economic policies the national government adopted this year is expected to be felt predominantly in 2014.¹⁴

This being the case, the forecast in the most likely scenario is around 4.0% for 2013, within a range of 3.5% to 4.5% (which was 3.0% to 4.5% three months ago). It would be 3.0% to 5.0% for 2014, with a baseline forecast above 4.0%, prompting a build-up compared to 2013. However, this range remains broad, as illustrated in the annual GDP fan chart (Graph 40). This is due to the considerable uncertainty associated with the external environment, but also to investment in civil works, which has been quite volatile in the past, accompanied by sharp revisions in the actual figures. The floor and ceiling of the forecast range are associated with the low and high sce-

13 The Federation of Colombian Coffee Growers says the renovation process not only means having younger trees that are resistant to diseases, such as rust fungus, and the effects of the weather. It also has been crucial to increasing productivity per hectare, which came to 11.1 bags of green coffee in 2012. Hopefully, will be more than 14.5 bags per hectare in 2013.

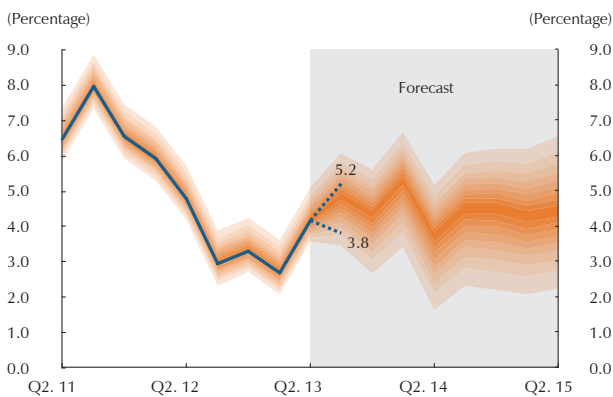
14 The Productivity and Employment Stimulus Plan (PIPE) features a number of subsidies that could be of direct and indirect benefit to industry. For example, it directly includes an \$800 billion (b) program to help finance working capital and investment in assets, through Bancoldex. Indirectly, PIPE has incentives for sectors such as agriculture and construction, which maintain ties with industry. In addition, several alterations and amendments have been made that would enable industry to lower its costs. One example is the two-year reduction in tariffs on imports of raw materials and capital goods not produced in the country. For a more detailed analysis of the various policies that would support the recovery in the industry, see Caicedo and Hernandez (2013). “Desempeño, perspectivas y estímulos para la actividad industrial” (Performance, Prospects and Incentives for Industrial Activity), Revista Coyuntura Pyme, No. 43, ANIF, October.

Graph 40
Annual GDP Growth Fan Chart



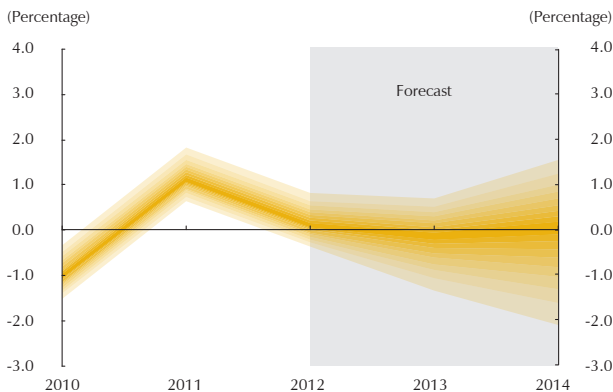
Source: DANE; calculations by Banco de la República.

Graph 41
Quarterly Annual GDP Growth Fan Chart



Source: DANE; calculations by Banco de la República.

Graph 42
Output Gap Fan Chart



Source: DANE and Banco de la República.

narios the international context, as discussed in Chapter I.

The growth fan charts (Graphs 40 and 41) give more importance to the downside risks. This suggests the likelihood that GDP growth in 2013 and 2014 will be below the baseline forecast. The main downside risks are associated with lower performance in domestic demand (particularly less investment in the construction of civil works and buildings, and less than expected government consumption) and further deterioration in the international context, especially during 2014. The external risk could materialize through less external demand, fewer transfers and FDI, loss of confidence and higher risk premia. The upside risks are associated with cost reductions due lower prices for regulated items and imported raw materials.

The latest estimates of the output gap indicate it would be slightly negative during 2013 in the central scenario. According to the risk balance, the gap in 2013 would be between -1.6% and 0.7% (Graph 42), which means it would be somewhat less than the estimate for 2012. It is expected to be between -2.1% and 1.5% in 2014, given the growth range presented. In this case, the new estimate also is slightly lower than the one in the previous quarterly report, and is akin to the path of growth forecast for 2014.

On the other hand, the job market models suggest the unemployment rate in 2013 would be approaching its non-accelerating inflation rate (NAIRU) from a positive level. This trend should continue during 2014, and the gap in the job market would close completely (to practically zero). This suggests inflationary pressures stemming from the job market would remain low for the remainder of this year and in 2014; especially considering the reduction in payroll taxes that began this year and would end in 2014.

This report contains the results obtained with two models: MMT and PATACON.

B. INFLATION

1. Forecasts

In addition to the usual inflation forecasts developed with *Banco de la República's* pass-through mechanisms model (MMT), this report also includes forecasts derived from a dynamic stochastic general equilibrium model (known as PATACON¹⁵). This methodology has been introduced gradually during the past two years¹⁶ and usually shows results very similar to those obtained with the traditional model. However, the inflation forecasts since the last quarter show some divergence that warrants an explanation by the Bank's technical staff.

The inflation forecasts obtained with the MMT increased slightly from those in the June report. However, in general, the trends are the same. According to the MMT, annual consumer inflation is expected to stay well below the midpoint of the target range (2.0% to 4.0%) throughout the remainder of the year and in 2014, except for a temporary hike earlier this year. Yet, given the nature of the model, inflation continues on a gradual upward trend that would put it at 3.0% in the long term.

The PATACON model also forecasts total consumer inflation well below the midpoint of the target range for the remainder of the year. However, by 2014, convergence towards that point would be faster, although the end result would also be below the middle of the range. In both cases, it is clear that the upward pressure on inflation would continue to be limited, particularly during the remainder of the year, but also in 2014.

To begin with, although the GDP figure for the second quarter was better than expected, the forecasts for the remainder of the year and 2014 did not change substantially. Growth rates similar to the long-term rate for the Colombian economy are still expected for these two years combined. For the second half of 2013, these forecasts imply slightly higher annual growth. However, this is partly because of a low base of comparison during the same period last year, due to temporary reductions in several GDP components.

With the growth rate anticipated in the baseline forecast for inflation, output gap models, including the MMT, suggest it could remain in slightly negative territory for the rest of 2013 and in early 2014, and would balance out by the end next year. These findings, which are not far from those in the

According to MMT and PATACON, consumer inflation would remain below 3.0% throughout the remainder of 2013 and in 2014.

15 PATACON: Policy Analysis Tool Applied to Colombian Needs

16 See the March 23, 2011 edition of the Inflation Report for a general introduction to Patacon.

No significant demand-pulled pressures on prices are anticipated.

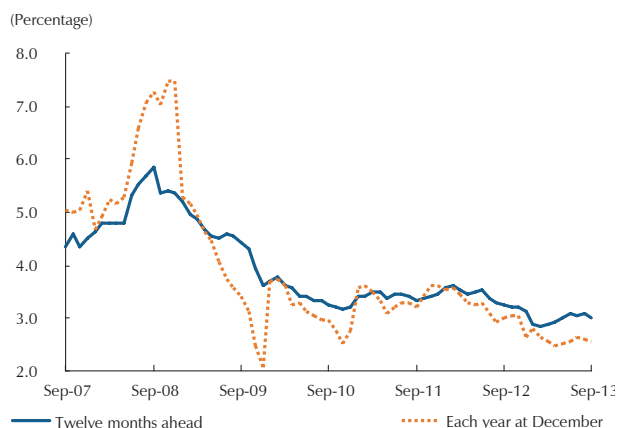
June report, do not anticipate growth in demand to exert significant pressure on prices in the coming quarters.

Secondly, recent months have seen reductions in international prices for raw materials imported and produced by the country. This might result in lower domestic production costs during the rest of the year. These reduced prices also would partially offset the effects of peso depreciation during the third quarter. Moreover, the baseline forecast for inflation includes additional price reductions for some raw materials during 2014, oil being the most important one, which is why cost pressures are expected to decline or continue to be contained until well into next year.

Wage costs should not be a major source of upward pressure on inflation in the short and medium term, as has been the case so far this year. As mentioned in Chapter II, according to the information at hand, wage adjustments in the formal segment of the labor market were at rates consistent with the inflation target, assuming reasonable growth in labor productivity. Furthermore, the tax reform that took effect this year would have lowered the cost of hiring for a large segment of workers by reducing payroll taxes. An additional reduction in these contributions is scheduled for 2014.

Inflation expectations remained anchored to the midpoint of the target range, or even slightly below at medium and long horizons. *Banco de la República's* monthly survey of financial analysts in early October showed inflation is expected to be 2.6% by the end of the year, which is slightly below the figure obtained three months ago, while the expectation at twelve months remained at 3.0% (Graph 43). The results of the latest quarterly survey, also by the Bank, were similar, with 2.8% anticipated for December this year and 2.9% by September of next year (Graph 44).

Graph 43
Annual Inflation Forecasts by Banks and Brokerage Firms

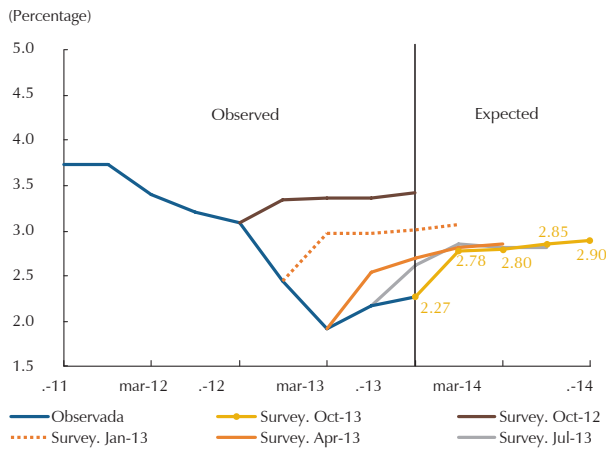


Source: DANE and Banco de la República.

Expectations derived from the TES (Government Bonds) yield curve also suggest an absence of upward pressure on inflation. With this method, expected inflation remained between 2.6% and 3.0% for horizons of two, three, five and ten years. These are quite similar to the percentages noted in the last edition of this report (Graph 45).

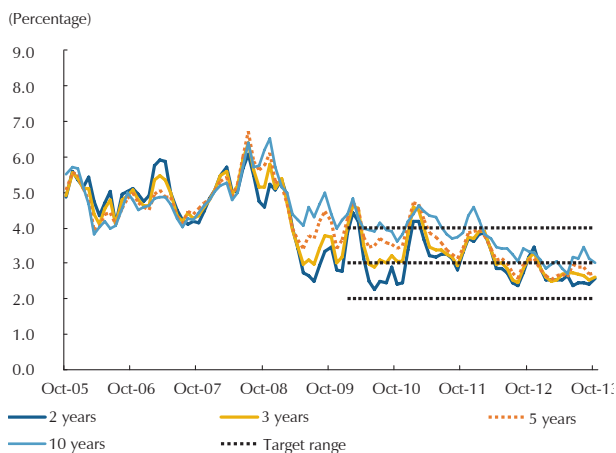
One of the few upward pressures on inflation in the coming months comes from depreciation of the peso as of February, which accentuated in June. There was some pass-through to domestic prices during the third quarter, as noted, especially to tradables, and the Bank's models predict this trend will continue throughout the rest of the year

Graph 44
Observed Inflation and Inflation Expectations
(At three, six, nine and twelve months)
(Annual inflation)



Source: Banco de la República.

Graph 45
TES-derived Inflation Expectations
(At two, three, five and ten years)
(Monthly average)^{a/}



a/ Nelson and Siegel method
Source: Banco de la República.

and in early 2014. However, the resulting increase in consumer prices will be moderated and not extend beyond the first quarter, as anticipated in the central inflation forecast in this report.

On the other hand, the baseline forecast contemplates temporary increases during the first half of the year. These would be due to a very low base of comparison originating in the same period during 2013, due to price cuts for fuel and other regulated items. Similarly, the normal agricultural supply cycle should lead to higher consumer prices for certain foods later this year and especially in early 2014, which also generates some temporary hikes in projected inflation.

As for the groups into which the CPI is divided for the purpose of this report, the MMT anticipates the gradual decline in the annual variation in the non-tradable CPI excluding food and regulated items will continue towards 3.0% during the remainder of this year and in 2014. This is in light of the fact that inflation expectations are anchored to the target and no demand-pulled pressures are expected, since the output gap is near zero.

As to the annual variation in tradables excluding food and regulated items, a moderate build-up is forecast for the next two quarters, slightly higher than was contemplated in the June report and reflecting accumulated depreciation of the peso. However, further increases in 2014 would be hampered by inflation expectations that would not increase and by low demand-pulled pressure, among other factors.

The baseline forecast for the regulated CPI anticipates a build-up in its annual variation at the start of the year, part of which would be temporary, as explained already. However, the figure for the end of 2014 would be close to the 3.0% target. These results do not take into account eventual price reductions to be decided by the national government or local administrations with respect to certain public utilities, nor do they contemplate any drop in fuel prices.

Therefore, the central path for non-food inflation would increase slightly towards the end of this year and in early 2014, but would remain below 3.0%.

This report indicates there is still a high degree of uncertainty regarding the performance of the international context.

Furthermore, as of the second quarter in 2014, non-food inflation would return to the levels seen today. Nevertheless, this new forecast implies an upward revision compared to the one in the previous report.

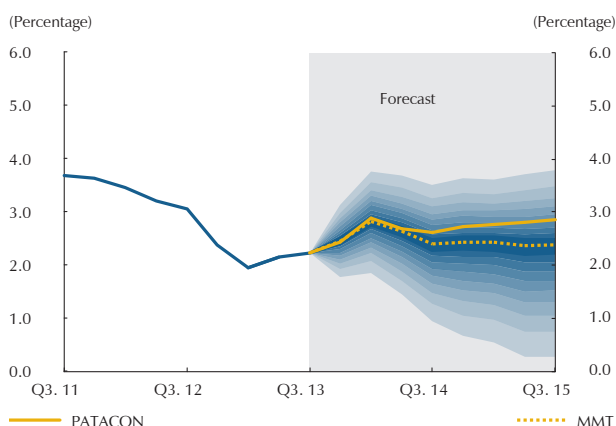
Annual inflation in the CPI for food will accelerate during the first half of 2014, but then decline somewhat. However, this will not be enough to prevent it from staying above the levels witnessed in the third quarter of this year. Still, factors such as few cost pressures and increased competition will keep food price hikes moderate and below the midpoint of the target range.

As for the PATACON forecast, the slightly faster convergence towards the midpoint of the long-term target range compared to the MMT path can be attributed primarily to two factors. The first is related to the anticipated evolution in nominal exchange rate depreciation, and especially the magnitude of its pass-through to consumer prices, which is higher in the case of the new model. The second factor is due to a more pronounced cycle in food prices, which makes their convergence towards 3.0% faster in the case of PATACON.

2. Risk Balance

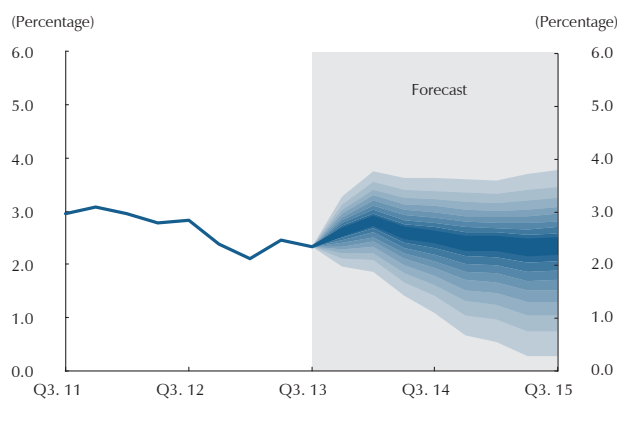
The risk balance estimated for overall consumer inflation and non-food inflation is shown in the fan charts (Graphs 46 and 47). This report reflects a high degree of uncertainty over how the international situation will develop, particularly its possible impact on the exchange rate, on the evolution of prices for food and regulated items, and on the growth in domestic demand. These circumstances have kept the forecast ranges in the inflation

Graph 46
Headline Inflation Fan Chart



Source: Banco de la República.

Graph 47
Non-food Inflation Fan Chart



Source: Banco de la República.

The downside risk to global growth is higher in this report than in the previous one.

fan charts fairly spread out, similar to those in the previous report. As to the bias in the fan charts, it remains on the downside, given the nature of the risks still facing the central inflation forecast, especially with regard to the international context.

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

Less global growth than is anticipated in the baseline forecast: Although the main indicators for the developed economies have shown some improvement, there is still considerable risk that this recovery would be interrupted or be much slower than envisaged in the baseline scenario in this report. This risk has also increased in the last few months as a result of recent events in the United States, particularly the federal government shut-down due to lack of a political consensus on the need to extend the debt ceiling and the possibility of automatic spending cuts if the US Congress does not reach an agreement. Moreover, any eventual tapering of the monetary stimulus program might have more of an impact on performance than anticipated, not only in the United States but in other developed economies as well, and especially in emerging markets.

Downside risks persist in the euro zone due to the financial fragility facing several countries on the periphery and the difficulties they might encounter in event of delays in implementing financial integration programs. On the other hand, the importance demonstrated by the informal financial system in China also poses risks to financial stability, with potential negative economic effects for that country and the world.

In the case of the Colombian economy, if these risks were to materialize they would translate into weaker external demand, reduced investor and consumer confidence, and more of a decline than anticipated in the baseline scenario for terms of trade. In principle, that kind of situation would exert downward pressure on overall inflation, provided the effects on the exchange rate do not offset them, as mentioned later.

Lower domestic demand than anticipated in the baseline forecast: The figures at August show the setback in industrial production would have continued in annual terms. The baseline forecasts anticipate an end to the downturn in this sector. However, this might be optimistic in light of the most recent data. The growth anticipated for Colombia's trading partners, which is less than the estimate last year, coupled with increased competition from imported products, might have more of an impact on the pace of industrial growth than is anticipated in this report, at least for the rest of the year. Of course, this would have repercussions on employment and household income and, ultimately, on demand. On the other hand, the expansion

Investment in civil works would continue to face bottlenecks in 2014.

Uncertainty about the pricing of certain regulated goods and services increased.

contemplated in the baseline forecast for investment in civil works towards 2014 might be high, taking into account the bottlenecks this activity has faced, such as the slow process for environmental licensing, a shortage of available land in urban areas, and limited capacity for implementation. Finally, there is the possibility of less private consumption than anticipated in the baseline forecast for the third quarter of 2013, given the drop in the consumer confidence indicator during August and September. All these factors would lead to less demand-pulled pressure on prices, especially for non-tradable goods, compared to that contemplated in the baseline forecast.

Lower price hikes for regulated items: Recent months have witnessed added uncertainty about the pricing of some regulated items (see Box 3). In the case of gasoline, the baseline forecast contemplates no price hikes during 2014, considering a decline in international prices and some pressure from the exchange rate are expected. However, there have been recent changes in the way the domestic price is set according to external variables. These changes, in an environment of falling international prices, can lead to unexpected domestic price cuts. All public utility rates, except those for telecommunication services, might be lowered in 2014 if Legislative Bill 101/2012 is approved. It would eliminate fixed charges for residential public utilities.¹⁷ The new rate structure for sanitation services, announced in June by the Ministry of Housing, is expected to take effect this year, providing rate reductions to over 80% of the population in nearly 350 municipalities throughout the country.¹⁸ These two possibilities were not fully considered in the baseline forecasts for inflation presented in this report.

The following are the main upside risks:

Increases in international risk and depreciation in the exchange rate that exceed expectations: There might be more upward pressure on the exchange rate than has been observed so far, if tapering of the Fed's monetary stimulus program generates important and permanent increases in the risk premia of the emerging economies, including that of Colombia. The expectation in this report is that tapering will not have sharp exchange repercussions for the region's currencies, as it presumably would be announced well in advance, would be gradually, and would obey the behavior of the fundamentals and the momentum in the US economy. This, in principle, would benefit Colombia and the rest of Latin America. Nevertheless, even if the country's vulnerability to reductions in capital flows might be less than in

Some public utility rates could be cut in 2014.

17 This bill was approved on May 29, 2013 in an initial debate by the Sixth Commission of the Colombian Senate.

18 See <http://www.minvivienda.gov.co/Prensa/Noticias2013/Paginas/Con-nuevo-marco-tarifario-para-aseo-Gobierno-busca-mejores-beneficios-para-los-usuarios.aspx>

There are still upside risks to food prices.

other countries (see Box 1), a strong reaction by the Colombian peso cannot be ruled out, especially in light of what happened in previous months. Further depreciation of the peso would bring upward pressure to bear on the cost of raw materials and imported foods, on the domestic price of gasoline and, in general, on prices for tradable goods, more so than anticipated. These upward effects could prevail over downward pressure from less global economic performance, contrary to what happened between 2008 and 2009, because the Colombian economy, on this occasion, would not be operating well below its potential.

Important food price hikes: Although the recent decline in international raw material prices and the reductions anticipated for 2014 (as in the case of oil) can have a downward effect on the food CPI, and even though domestic agricultural supply conditions remain favorable, there is still an upside risk to food prices, which is higher in this report than was envisioned last quarter. On one hand, current relatively low prices might discourage production and generate price hikes for perishable foods in 2014, making the normal cycle of this activity more pronounced than envisioned this report. Furthermore, the decline in the cattle herd, estimated at 500,000 head in the past two years according to the Colombian Federation of Cattle Ranchers (FEDEGAN), coupled with the added slaughtering so far this year, could result in less of a beef supply and higher prices in the coming months. Moreover, the measures implemented recently to safeguard and ensure minimum purchase prices for certain crops can also lead to higher than expected prices.^{19 20}

Although an assessment of the various risks in the fan chart shows a downward bias, it is still very likely that headline inflation will stay within the 2.0% to 4.0% range in 2013 and 2014. On the other hand, the risk balance indicates a higher probability that inflation will remain below the long-term target (3.0%). The forecast presented in this report assumes an active monetary policy, with interest rates that are adjusted to ensure compliance with the long-term target for inflation.

19 See Decree 2210 issued on October 7, 2013 by the Ministry of Commerce, Industry and Tourism.

20 See [https://www.minagricultura.gov.co/noticias/Paginas/Precio-de-la-carga-de-papa-aument%C3%B3-de-\\$17-000-a-\\$31-800,-gracias-a-programa-de-compras-directas-que-adelanta-Minagricultur.aspx](https://www.minagricultura.gov.co/noticias/Paginas/Precio-de-la-carga-de-papa-aument%C3%B3-de-$17-000-a-$31-800,-gracias-a-programa-de-compras-directas-que-adelanta-Minagricultur.aspx)

V. RISKS TO LONG-TERM MACROECONOMIC STABILITY

The current account deficit relative to GDP expanded in the first half of the year, although estimates suggest that, for all of 2013, it would be similar to the deficit in 2012. This was coupled with a trend toward real depreciation, accentuated in May after the United States Federal Reserve announced an eventual reduction in its asset-buying program.

On the domestic scene in the second quarter of 2013, prices for new and used housing again rose significantly, in real terms. The real increase in lending, which had slowed throughout the year, tended to stabilize in September at a rate above the real increase in GDP estimated for 2013.

If developed countries begin to normalize their monetary policy in an orderly fashion, this could raise the cost of external borrowing. It also would help to reduce possible macroeconomic imbalances caused by an expansive international monetary policy.

The recent international financial crisis showed the monetary policy actions undertaken to achieve low and stable inflation are necessary, but not sufficient to ensure sustained economic growth. Even if low, stable inflation is achieved, there is the risk that macroeconomic imbalances will emerge and correcting them in the future might involve considerable loss in terms of output, employment and well-being. For this reason, monetary policy, in coordination with general economic policy, should be on the lookout for the possible formation of imbalances.

The possible formation of macroeconomic imbalances should be monitored through monetary policy, in coordination with the general economic policy.

A number of international organizations, central banks and analysts have expanded their agenda in recent years to include monitoring possible sources of vulnerability and constructing certain types of indicators to keep an eye on imbalances and to design policies to avoid them.²¹ Disclosure of the

21 Such as the IMF, the BIS, the European Central Bank and others

results of these analyses can be considered a macro-prudential policy, as it allows agents to make decisions based on more information.

This chapter looks at some of the variables identified as being crucial to detecting macroeconomic vulnerabilities. The macroeconomic imbalance index (IMI) is presented as well. It combines estimates of misalignments in the current account, the real exchange rate, lending and housing prices. This indicator is another tool to supplement an analysis of the general economic situation and the individual variables.

A. THE CURRENT ACCOUNT AND THE REAL EXCHANGE RATE

As mentioned in the first chapter of this report, the current account deficit increased during the first half of the year with respect to the same period in 2012 (3.3% of GDP compared to 2.9%). This occurred due to the generalized reduction in prices for major export products (except oil) and the supply shocks observed in the mining sector at the start of the year.

Graph 48
Current Account by Components as a Percentage of GDP

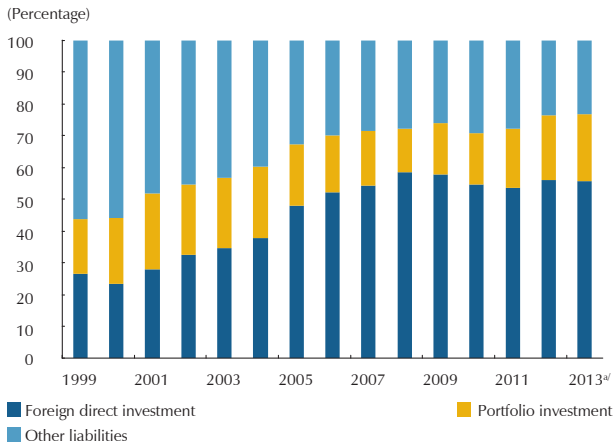


Source: Banco de la República.

A slight increase in the external deficit is anticipated during 2013 as a whole, mainly because of a lower trade surplus (Graph 48). However, compared to the forecasts outlined in previous reports, the magnitude of the deficit expected in 2013 is less, partly due to the slowdown in imports so far this year and the improvement in oil exports. The latter is explained by the fact that the international price of crude oil has remained high because of geopolitical tensions, especially in Syria. If these conditions change and the price of oil falls, terms of trade could be reduced and the country's external revenue would decline as a result.

In terms of external financing, although the rest of the year and 2014 likely will see continued ample international liquidity, the probability that the Fed will begin to taper its monetary stimulus program is not negligible. Nor can we rule out increases in international risk premia due, for example, to delays in reaching an agreement on the debt ceiling in the United States. These scenarios could make access to foreign borrowing more expensive and affect capital flows to emerging economies, including Colombia. The impact of these scenarios will depend on several factors, including the rate at which monetary stimulus is tapered, the pace of recovery in the global

Graph 49
Composition of External Liabilities



a/ Balance of external liabilities at June 30, 2013
Source: Banco de la República.

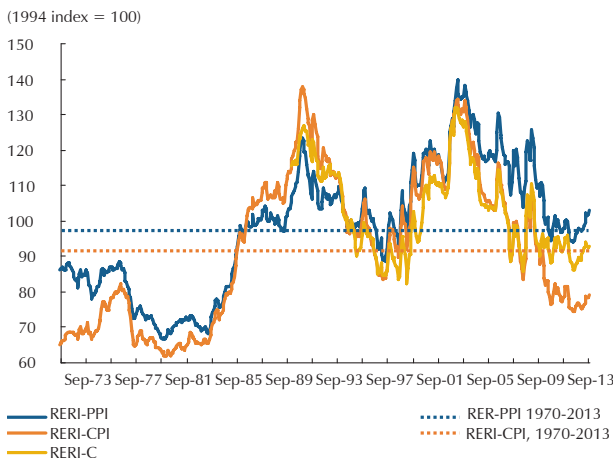
economy, the make-up of external financing in each economy, and each country’s monetary and fiscal space (see Box 1).

In Colombia, the current account deficit in 2013 is being funded primarily by FDI, as it has been for the last eight years. These flows can be considered less susceptible to external shocks that might prompt sudden capital outflows, since funding of this type is often categorized as longer term (Graph 49). The added amount of international reserves by the end of the year, which would come to nearly US \$ 44 b (11.7% of estimated GDP),²² constitute further support to soften the impact of an adverse external shock. These reserves, plus resources from a flexible line of credit with the

IMF for US \$ 5.84 b, would be available in the event external conditions deteriorate sharply.

Exchange rate flexibility and low inflation expectations anchored to the long-term target are some of the advantages the country has to “cushion” adverse external shocks to its balance of payments. For example, nominal and real depreciation generated by an unexpected increase in Colombia’s risk premia could encourage exports and discourage the demand for imports. This would help to soften the impact on the current account.

Graph 50
Real Exchange Rates and Historical Averages

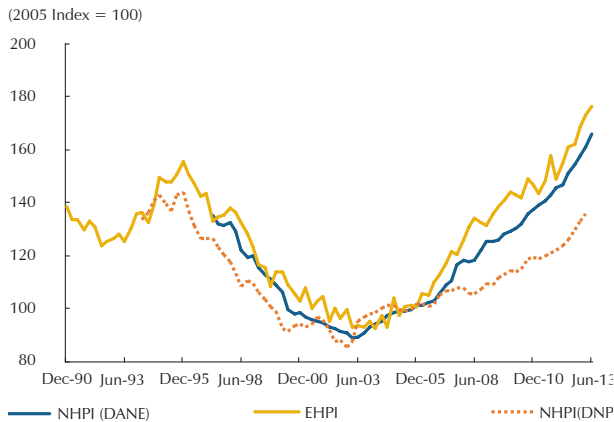


Source: Banco de la República.

The real exchange rate (RER) has shown a tendency to depreciate (Graph 50) since the early months of 2013. This movement became more pronounced in June and July, after the Fed’s announcement, and led to a correction of the misalignment in the RER. Although that depreciation has eased in the recent months, the latest estimates by *Banco de la República* indicate the imbalance is still being corrected, given expectations of less international liquidity.

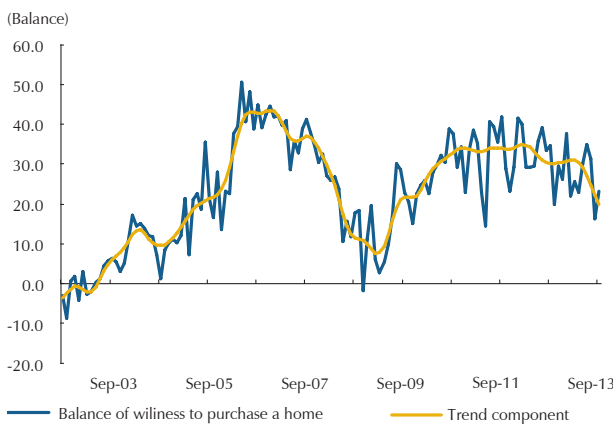
22 In September 2013, the Board of Directors of *Banco de la República* decided to adjust its program to purchase international reserves and will accumulate up to US \$ 1 billion between October and December.

Graph 51
Home Prices index Relative to the CPI



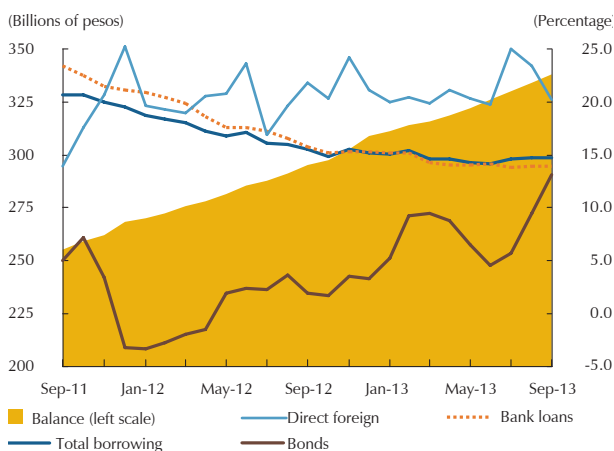
Source: DANE, DNP and Banco de la República.

Graph 52
Willingness to Purchase a Home



Source: Fedesarrollo (Consumer Opinion Survey).

Graph 53
Total Borrowing^{a/}
(Annual change, monthly average)



a/ F/C with fixed exchange rate, December 2012 base: \$1,795/US\$
Source: Office of the Financial Superintendent of Colombia; calculations by Banco de la República.

B. HOME PRICES

In the second quarter of 2013, for the third consecutive period, prices for new and existing housing (relative to the CPI) posted annual variations near 10%. Moreover, according to some indicators, these prices accumulate real increases of over 50% compared to what was observed in 2005 (Graph 51). As mentioned in previous reports, the increase in housing prices in recent years has occurred in other emerging countries as well, such as Chile and Peru.

In addition to internal factors concerning supply and demand, the increase in housing prices in emerging market economies has been fueled, in part, by the existence of ample international liquidity. Therefore, to the extent that monetary policy in the advanced economies begins to return to normal, other assets could have better prospects for profitability and help to reduce the pressure on home prices. In this respect, calculations by Aso-bancaria²³ show the return on that investment in Colombia has fallen in recent years. The opinion poll by Fedesarrollo shows the willingness to buy a home has been on the decline since mid-2012 (Graph 52).

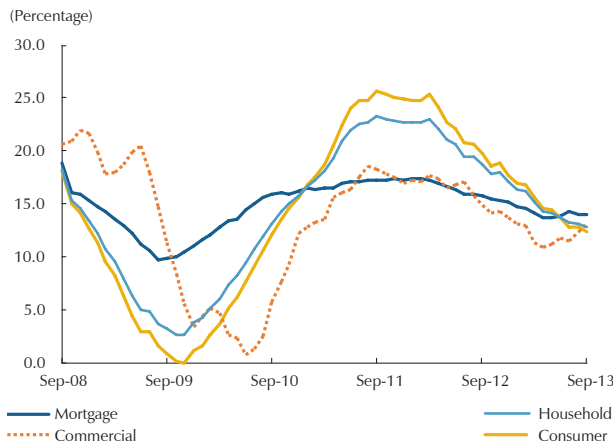
C. BORROWING

The recent momentum in private borrowing is determined by an important acceleration in bond issues,²⁴ due to high and sustained growth in foreign direct borrowing (around 21% annually in September 2013) and to stability in the growth of bank lending overall, which is close to 14% (Graph 53).

23 Aso-bancaria (2013). Semana Económica, October 21.

24 Annual growth in the balance of bonds was 3.3% in December 2012 and 13.2% in September, mainly due to the issues floated by Ecopetrol and Emgesa.

Graph 54
Financial System Portfolio
(Annual change, monthly average)



Source: Office of the Financial Superintendent of Colombia, calculations by Banco de la República.

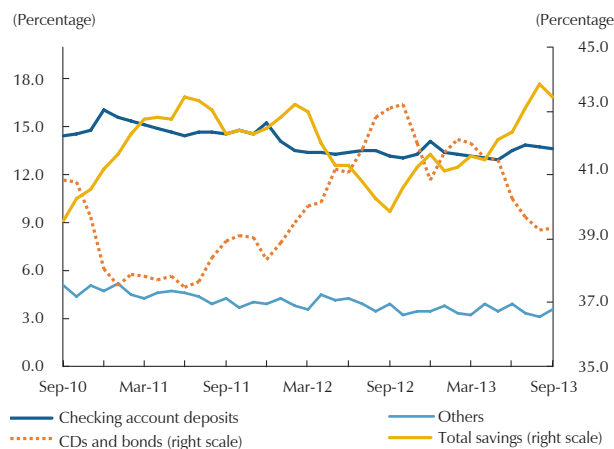
at around 14%. This was the result of a slight acceleration in commercial loans, mainly in the domestic-currency portfolio, and a slower increase in consumer borrowing. Growth in the mortgage portfolio has been relatively stable (Graph 54).

Corporate decisions on borrowing have been influenced by prospects of a possible reduction in international liquidity and by actual real depreciation.

The increase in foreign direct borrowing since late 2011 has surpassed the increase in overall borrowing and has gradually gained importance in private sector funding, especially for companies (having gone from a share of 11.9% in December 2011 to be 13.1% in September 2013). While this shows the country is more integrated into the international credit market, firms that earn their income in pesos and do not have adequate exchange leverage to cover their debt in foreign currency can face problems in the event of unexpected sharp depreciation in the peso.

Bank lending (in domestic and foreign currency) had slowed since the final quarter of 2011,²⁵ before stabilizing during the third quarter of 2013

Graph 55
Liabilities Subject to the Reserve Requirement
(Share of the total)



Source: Office of the Financial Superintendent of Colombia, calculations by Banco de la República.

Since mid-year, the make-up of the loan portfolio held by commercial banks has shifted towards peso loans and longer maturities (see Box 4). This increased demand for loans in domestic currency, coupled with deterioration in the loan quality ratings of some customers (especially in the case of micro-loans), partly explains the slight increase in interest rates on ordinary lending.

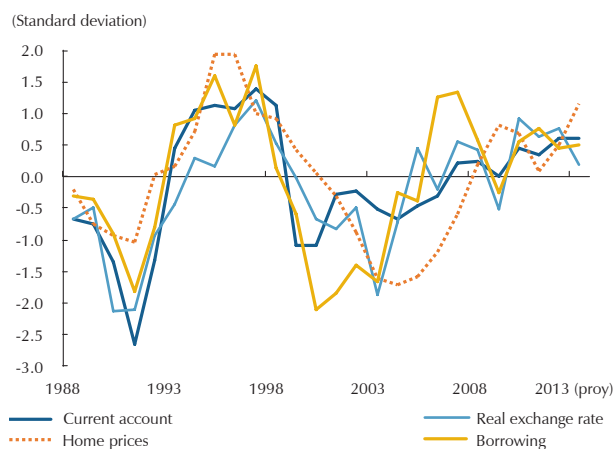
There has been a recent increase in the mismatch between the loan maturities and funding sources of the financial system. In fact, the composition of liabilities subject to reserve requirements (LSR) is shifting in favor of demand deposits and short-term time certificates (CDs) (Graph 55), while the pay-back period for newly disbursed loans has increased.

25 When it grew at annual rates above 22%.

D. LONG-TERM ESTIMATES AND THE MACROECONOMIC IMBALANCE INDEX (MII)

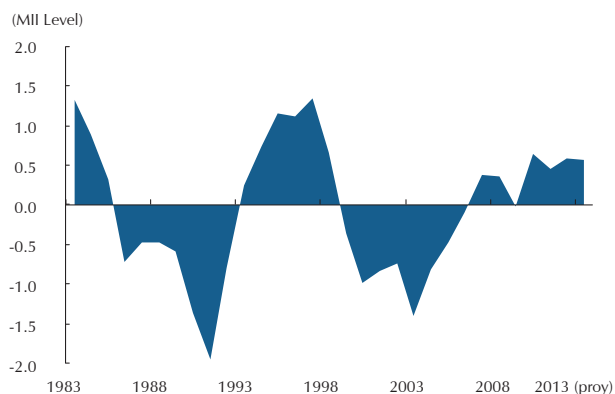
Banco de la República's technical staff estimates the long-term values of the described variables, which are used to supplement an analysis of possible vulnerabilities and the formation of macroeconomic imbalances.²⁶ For 2013,

Graph 56
Individual Imbalances in the Macroeconomic Imbalance Index
(Standardized series)



(proy) proyectado.
Source: Banco de la República.

Graph 57
Macroeconomic Imbalance Index



(proy) proyectado.
Source: Banco de la República.

the differences between the observed values and the estimated long-term level continue to suggest imbalances.²⁷ With respect to the current account and lending, the magnitude is similar to what was estimated for 2012, while a major correction in the RER was observed. As for home prices, the new estimates suggest an extension of the misalignment with respect to last year (Graph 56).

When these standardized gaps are combined, the estimate for the 2013 MII remained at a level similar to the one in 2012 (Graph 57). There is a slight reduction compared to the estimate presented in the July 2013 edition of the Inflation Report, mainly due to smaller gaps in the current account and in the RER.

Therefore, according to this indicator, the actual size of the aggregate imbalance would be considerably less than in the late nineties, although it might be similar in duration. Moreover, compared to that period, several elements suggest the Colombian economy could be in better position to cope with external shocks. Some of the more important circumstances in this respect include a composition of funding more concentrated on FDI, greater exchange rate flexibility, low inflation, inflation expectations anchored to the long-term target, and a healthy financial system. The various indicators of international reserves are higher and the government-debt indicators are more robust. Even so, it is advisable to continue

to monitor these variables, especially when the estimates suggest the imbalances could become more persistent.

26 See Arteaga, Huertas and Olarte (2012) for a detailed explanation of the different long-term measurements and the macroeconomic imbalance index.

27 Because the real exchange rate gap is defined as the difference between the long-term level and the actual one, positive levels imply the presence of imbalances. This applies to all the variables.

BOX 4

Deposit and Loan Market Performance in Response to Expectations of Less International Liquidity

Luis Hernán Calderón López*

The monetary stimulus programs in the developed countries have generated a large amount of international liquidity since the international financial crisis in 2008. This has translated into domestic currency appreciation and significant increases in lending in several emerging countries. In May 2013, the announcement by the US Federal Reserve (Fed) that it might begin to taper its monetary stimulus prompted a rise in interest rates on the international market and a wave of depreciation in the currencies of developing economies and the value of their debt securities.

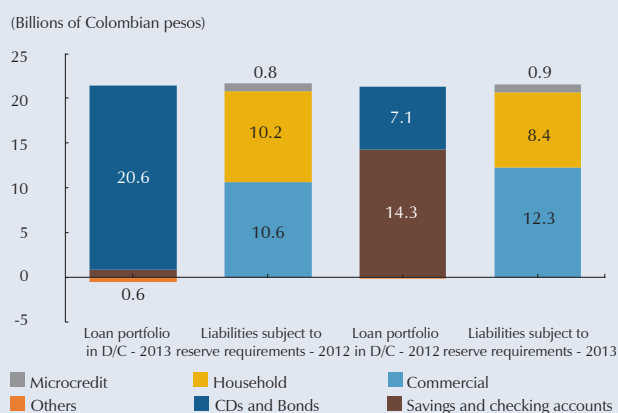
In Colombia, the various measurements of country risk have increased since the Fed's announcement. One example is the average devaluation expected by market analysts. Between April and June 2013, the peso devalued 6.4% and TES devalued 100 bp and 200 bp on average in the short and long segments of the curve, respectively. Along the same line, the real sector reduced its monetization of foreign currency during the third quarter.

The momentum in monetary and credit aggregates recovered. In fact, a look at the change in several variables of the Colombian financial system so far this year through September, compared to the same period in 2012, suggests economic agents could be forming expectations about less expansionary financial conditions.

With regard to liabilities subject to reserve requirements (LSR), a shift in composition towards short-term deposits has been observed in the margin. So far this year through September (Graph R4.1), sight deposits (checking accounts and savings deposits) accounted for 67.4% (\$ 14.3 t) of the total increase in deposits, which is significant compared to the increase observed during the same period last year (3.8% and \$ 0.8 t). As for time deposits during 2013 (CDs and bonds), those at more than eighteen months accounted for only 4.9% (\$ 0.4 t) versus 70.9% (\$ 12.8 t) during the previous year (Graph B4.2).

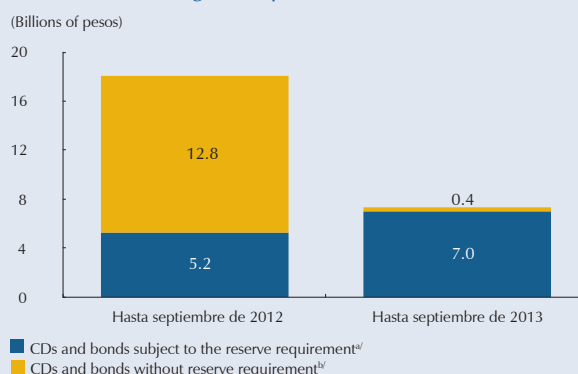
Although the average policy rate in 2013 (3.48%) was lower than in 2012 (5.08%), as reflected in the interest rates

Graph B4.1
Loan Portfolio in D/C and Liabilities Subject to Reserve Requirements
(Year to date change by September 2012 and 2013)



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

Graph B4.2
CDs and Bonds
(Year to date change at September 2012 and 2013)



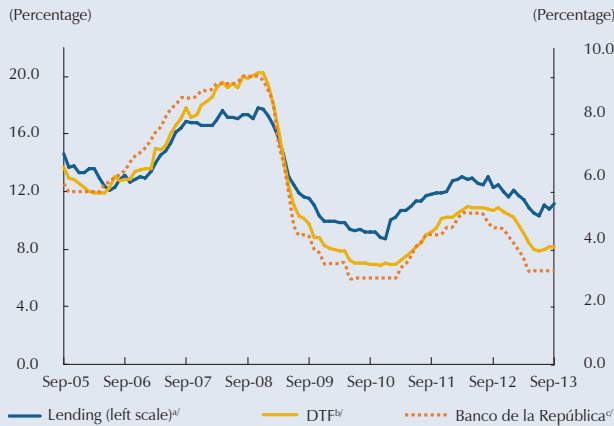
a/ Up to 18 months maturity
b/ Over 18 months maturity
Source: Office of the Financial Superintendent of Colombia; calculations by Banco de la República.

charged by financial intermediaries (Graph B4.3), this difference does not appear to be enough to explain a change of this magnitude in the make-up of deposits. For example, in 2011, when the average policy rate was 3.78%, the share of deposits was 60.2%, which is much higher than the share observed recently. In addition, the actual difference between the policy interest rate and the average interest rate on CDs is higher than in 2011, even though CDs also have concentrated on shorter maturities.

As for the loan portfolio, changes that suggest the prospect of less international liquidity and preferences for longer-term funding were observed as well. To begin with,

* The author is a financial-sector expert who works with the Department of Programming and Inflation. He wishes to thank Gloria I. Sarmiento B. for her comments. His opinions are not binding on Banco de la República or its Board of Directors.

Graph B3.3
Market Interest Rates

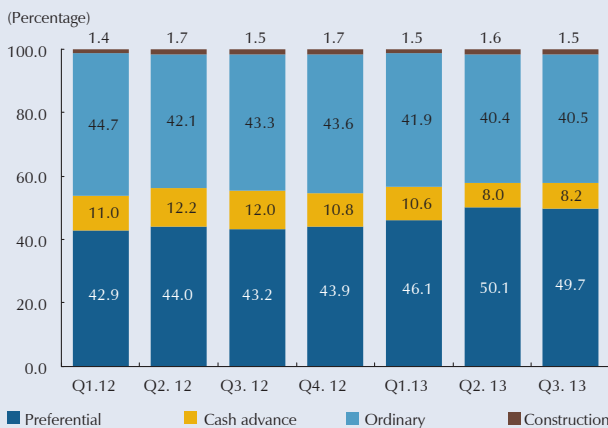


a / Weighted average for disbursements on ordinary, preferential, cash advance and consumer loans
 b / Indicator of CD deposit taking at 90 days
 c / Banco de la República's repo rate
 Source: Office of the Financial Superintendent of Colombia; calculations by Banco de la República.

commercial loans in domestic currency rebounded and the foreign currency component contracted as of the end of the second quarter. The balance of commercial loans in foreign currency was reduced gradually as of April 26, 2013 and represented a contraction of 6.4% (US \$ 653 million) on October 4.

Secondly, the momentum in commercial loans in domestic currency has been led by disbursements of preferential loans.¹ Their share came to 50%, on average, between April and September 2013, compared to 43.5% last year (Graph B4 .4). Disbursements at terms of over three

Graph B4.4
Quarterly Commercial Loan Disbursements in 2012 and 2013 (Share)



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

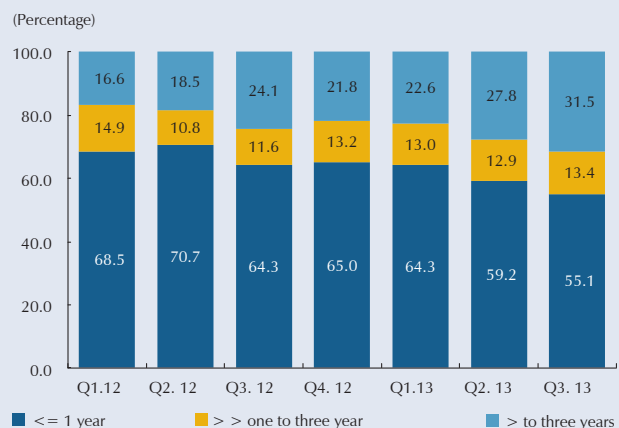
1 These are loans where the interest rate is negotiated.

years gained importance in this type of lending, reaching 31.5% in the third quarter compared to 22.6% in the first quarter of 2013 and 20.2% in the previous year (Graph B4 .5). In addition, corporate bond issues bounced back during the third quarter, adding \$ 2 b to their outstanding balance. The last two quarters saw an increase in the share of borrowing in domestic currency, at longer maturities, by large companies that are well- rated by the financial system.

In line with the foregoing, preferential-type cash advances at less than one month lost share during the last two quarters. Ordinary loans also lost momentum in the third quarter compared to the second (\$ 14.3 t disbursed versus \$ 16.4 b), and their average monthly interest rate increased by 68 bps (from 10.13% in June to 10.82% in September), with no changes in the structure of maturities.²

In conclusion, the behavior of monetary aggregates and lending since May of this year, when the Fed announced it might start to ease its monetary stimulus, suggests expectations of tighter liquidity conditions could be gaining force. In particular, we have seen a preference for demand deposits, a shift towards loans in domestic currency at longer maturities, especially for the preferential corporate sector, and increases in interest rates on ordinary loans. These reactions suggest that, if the Fed does begin to taper its monetary stimulus in 2014, these trends could intensify.

Graph B4.5
Quarterly Preferential Loan Disbursements by Maturity in 2012 and 2013 (Share)



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

2 The share of disbursements at a term of up to one year was 45.8% in June and 45.6% in September; at maturity above one year, it was 54.2% in June and 54.4% in September.

ATTACHMENT

MACROECONOMIC FORECASTS BY LOCAL AND FOREIGN ANALYSTS

The latest forecasts by local and foreign analysts concerning the major economic variables for 2013 and 2014 are summarized in this section. At the time they were consulted, the analysts had data up to September 2013. These estimates were obtained through an electronic survey and do not correspond to those developed by *Banco de la República* or its Board of Directors (BDBR).

Table A1:
Forecasts for 2013

	Real GDP Growth (Percentage)	CPI Inflation (Percentage)	Nominal exchange rate end of:	Nominal DTF (Percentage)	Fiscal deficit (Percentage of GDP)	Unemployment Rate in the Thirteen Main Cities (Percentage)
Local Analysts						
Alianza Valores	3.7	2.7	1930	3.95	2.4	9.2
Anif ^{a/}	3.8	2.60	n.d	3.80	-2.4	10.0
Banco de Bogotá	3.9	2.50	1900	4.00	-0.5	9.9
Bancolombia	3.8	2.60	1898	4.10	-2.6	9.4
BBVA Colombia ^{a/}	4.1	2.68	1895	3.92	-2.5	10.0
Corficolombiana	4.2	2.75	1850	4.00	-1	9.8
Corpbanca ^{b/, c/}	4.0	2.42	1923	4.05	-2.4	10.6
Corredores Asociados	4.2	2.58	1915	3.90	-2.4	9.8
Correval	4.5	2.50	1850	3.80	-1	9.7
Davivienda ^{a/}	4.2	2.35	1890	3.98	2.1	10.0
Fedesarrollo ^{a/}	3.8	2.5	1875	3.78	2.4	10.8
Ultrabursátiles	4.0	2.68	1940	4.05	n.d	9.7
Average	4.0	2.6	1,897	3.9	-0.7	9.9
Foreign Analysts						
Citi ^{a/}	3.8	2.40	1950	4.10	-2.5	10.1
Deutsche Bank	3.8	2.80	1920	3.25	-1.20	9.9
Goldman Sachs	4.1	3.00	1950	3.25	-2.40	n.d.
JP Morgan	3.8	3.00	n.d.	3.25	-1.20	10.2
Average	3.9	2.8	1,940	3.5	-1.8	10.1

n. d.: Not available

a/ The projected deficit pertains to the national government

b/ Average unemployment rate for the year

c/ Formerly Banco Santander

Source: *Banco de la República* (electronic survey).

Table A2
Forecasts for 2014

	Real GDP Growth (Percentage)	CPI Inflation (Percentage)	Nominal Exchange Rate End of:
Local Analysts			
Alianza Valores	3,3	3,80	2000
Anif	4,5	3,00	n.d
Banco de Bogotá	4,5	2,95	1900
Bancolombia	4,4	3,00	1976
BBVA Colombia	4,7	3,25	1900
Corficolombiana	5,0	3,20	1875
Corpbanca ^{a/}	4,4	3,01	1919
Corredores Asociados	4,8	3,10	1950
Correval	4,6	3,10	1870
Davienda	4,6	2,74	1920
Fedesarrollo	4,6	3,3	1940
Ultrabursátiles	4,3	2,84	2000
Average	4,5	3,1	1.932
Foreign Analysts			
Citi	4,5	3,00	1961
Deutsche Bank	4,5	3,5	2000
Goldman Sachs	4,8	3,0	2055
JP Morgan	4,5	3,0	n.d.
Average	4,6	3,1	2.005

n. d.: not available
a/ Formerly Banco Santander
Source: Electronic survey.

1. Forecasts for 2013

The local analysts forecast 4.0% economic growth, as was estimated for the last edition of this report. The foreign analysts who were consulted still expect GDP growth to average 3.9%.

As for inflation forecasts, the local and foreign analysts predict price increases of 2.6% and 2.8% by the end of the year, respectively. These percentages are within the target range set by the Board of Directors of *Banco de la República* for 2013 (from 2.0% to 4.0%).

In terms of the exchange rate, the local analysts expect the representative market exchange rate (RMER) to average \$1,897 by the end of the year, compared to \$1,904 estimated in the survey considered in the last edition of this report. The foreign analysts expect the RMER to be near \$1,940 by the end of the year.

With respect to the rate on time deposits (DTF), the local analysts forecast 3.9%, on average. They also expect the unemployment rate to be 9.9%. These forecasts represent no change from the previous report.

2. Forecasts for 2014

The local analysts forecast 4.5% economic growth in 2014 and the foreign analysts, 4.6%. As for inflation, the local and foreign analysts are forecasting 3.1%. The local analysts expect the exchange rate to average \$1,932, while the foreign analysts anticipate \$2,005.

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