



PUBLIC VERSION

Working Papers from the
Board of Directors
Banco de la República

Monetary Policy Report



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Economic Studies Division

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I. External Context and Balance of Payments

1. In December, Colombia's terms of trade would have exhibited an additional reduction as a result, mainly, of a fall in the international price of oil. So far this month to December 15, the price of Brent oil fell 9.9% on average, compared to what was observed in November. This reduction is explained mainly by the decision of the countries belonging to the Organization of Petroleum Exporting Countries (OPEC) not to restrict its production, the strength of the US dollar, and the forecasts by some specialized agencies that excess supply would continue throughout 2016. Additionally, there is a high amount of oil inventories globally.
2. The prices of nickel and of other metals exported by some countries in the region did not present significant changes in the last few weeks, continuing at the low levels reached by the end of the previous month. Meanwhile, the international price of coffee, despite showing some increases from the previous month, continues at relatively low levels compared to last year.
3. The most recent records of global economic activity confirm the low growth of Colombia's major trading partners for 2015 (0.7%) *vis-à-vis* observations from last year (1.5%).
4. In the United States, figures for retail sales and consumer confidence to November remained at relatively high levels and suggest that the determinants of private consumption continue being favorable, and that hence domestic demand continues to consolidate as the main engine of growth of the U.S. economy. Contrastingly, industrial production would have contracted. As for the labor market, job creation indicators for November were high, with which the unemployment rate remained at 5.0%. Regarding the annual variation in prices, there were some increases in the indicators for core inflation (from 1.9% to 2.0%), and total inflation, although the latter still continues at low levels (0.5%).
5. In this context, the Federal Open Market Committee of the Federal Reserve (Fed) increased its benchmark rate by 25 basis points for the first time since the financial crisis of 2008, placing it at a range between 0.25% and 0.50%.

Additionally, the Fed suggested that it would continue with gradual increases during 2016.

6. In the euro zone, preliminary confidence indicators and industrial surveys to December suggest that the economy would have continued to expand at a modest pace. Regarding the variation in prices, in November the indicator of total yearly inflation remained stable at 0.1%, while the core inflation indicator declined moderately, standing at 0.9%. In this context, the European Central Bank (ECB) decided to increase its monetary stimulus by extending the maturity of its financial assets purchase program and reducing the rate for deposits.
7. In China, indicators of industrial production and retail sales to November exhibit an improvement in the dynamism of real activity compared to that observed at the beginning of the year. In contrast, investment on fixed assets continued to moderate. Yearly inflation in November remained low (1.5%). On the other hand, the Central Bank of China announced that it would use a basket of currencies as a reference to fix the exchange rate of the yuan, which resulted in a depreciation of this currency against the US dollar in recent days.
8. In Latin America, GDP growth records for Brazil in the third quarter show a deepening of its recession. While all the components of domestic demand exhibited contractions, investment showed the greatest fall. The figures of real activity for October in Chile and Peru show that these economies would have continued to show a lower dynamism than in previous years.
9. The records of inflation to October in Latin American economies continued to show a heterogeneous behavior. In Chile, inflation reduced slightly and was at the top part of its central bank's target range. In Mexico, it fell again and remains below 3.0%. Contrastingly, yearly variation of prices in Peru increased and continued well above the target range of its monetary authority, which led to an increase in its benchmark rate. On the other hand, inflation in Brazil remains high and with a marked upward trend.
10. Regarding the international financial markets, the prospects of an increase in the benchmark interest rate on the part of the Fed would have explained a large part of the increase observed in financial volatility in recent days. Additionally, a strengthening of the US dollar *vis-à-vis* most currencies in the

world and lower average values of the stock market indexes so far this month compared to observations from November took place. This reduction was concentrated in energy companies and those qualified as risky (high-yield corporations).

11. As for Latin America, risk premia have increased so far this month, and continue at the highest levels since 2009 in Brazil and Colombia. The currencies in the region resumed their weakening trend *vis-à-vis* the US dollar. This behavior has been especially strong regarding the Colombian peso, which depreciated 8.1%, moving from an average value of COP \$3,009 per US dollar in November to COP \$3,257 per dollar so far to December 15.

Exports and Imports

12. Total exports in US dollars recorded a yearly fall of 36.9% in October, explained by decreases in the value of exported mining goods (-48.0%), agricultural products (-13.0%), and other exports (-15.6%). The fall in mining goods is mainly associated with lower exports of oil (-45.7%) and coal (-55.7%). The group of exports of agricultural goods recorded a fall in coffee exports (-29.2%) and flowers (-17.0%).
13. Among other exports, the falls in graphic arts (-35.9%), textile products (-30.6%) and leather products (-40.1%) stand out. By destinations, the following falls stand out: 46.6% to Venezuela; 37.4% to Ecuador; 7.7% to USA; and 18.4% to other destinations. Contrastingly, there was an increase in external sales of this item towards the European Union (62.5%).
14. In the accumulated total of the year to October, total exports fell 35.1%. This decrease is explained by the exports of mining goods (-46.8%) and other products (-10.8%). Exports of agricultural goods increased 1.1% in that period. The negative variation of external sales was mainly due to a lower value of oil exports (-50.0%), refined products (-59.1%), and coal (-33.3%). Within the rest of exports, the falls in graphic arts (-17.2%), leather products (-12.5%) and machinery and equipment (-13.4%) stand out. Exports of agricultural goods increased slightly thanks to the increase in coffee (8.0%).

II. Growth, Domestic Demand and Credit

15. According to the most recent information published by DANE, the Colombian economy grew 3.2% on a yearly basis during the third quarter of 2015. This figure, which meant an acceleration compared to the records of the first semester, is located in the upper part of the forecast range presented in the previous Inflation Report (2.3% and 3.5%, with 2.9% as the most likely figure). GDP grew 1.2% quarterly, which corresponds to an annualized rate of 5.1%.
16. On its part, domestic demand grew 2.8% during the period of July-September (**Table 1**). This result is mainly explained by the behavior of household consumption (3.8%). However, it is important to mention that expenditure in durable goods showed a 4.6% contraction, which was offset by the dynamism of spending on semi-durable goods (4.1%) and services (4.6%). In the case of gross capital formation, which grew 1.0%, a great disparity was observed in its components. Regarding foreign trade, exports exhibited a 0.7% decrease, and imports a 0.6% increase.

Table 1

	2014					2015		
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Whole year	1st Qtr	2nd Qtr	3rd Qtr
Total consumption	5.2	4.4	4.3	5.0	4.7	3.7	3.0	3.4
Household consumption	4.1	3.8	4.1	5.4	4.3	4.1	3.5	3.8
Non-durable goods	3.6	3.0	3.9	4.8	3.8	3.9	3.6	3.9
Semi-durable goods	3.8	4.0	3.2	7.5	4.6	3.8	2.3	4.1
Services	4.8	4.1	4.1	4.2	4.3	4.3	4.1	4.6
Durable goods	4.1	5.1	8.2	12.7	7.6	3.2	(0.2)	(4.6)
Government consumption	9.4	6.7	5.3	3.8	6.2	2.2	1.8	2.7
Gross capital formation	14.7	13.8	10.1	8.5	11.7	6.5	1.0	1.0
Gross fixed capital formation	13.3	8.6	11.8	10.1	10.9	6.0	1.8	(0.4)
Farming, forestry, hunting and fishing	3.1	3.0	4.5	7.8	4.6	(2.0)	(1.2)	(1.0)
Machinery and equipment	14.4	7.8	14.6	12.2	12.2	1.6	(5.2)	(1.7)
Transportation equipment	5.2	11.1	14.9	16.6	12.1	30.3	(8.9)	(4.9)
Construction and buildings	7.1	1.2	15.4	7.4	7.8	2.3	9.4	(7.4)
Civil works	25.8	13.6	6.7	3.6	12.1	6.7	8.1	8.5
Services	5.7	1.5	5.6	1.2	3.5	1.7	(0.6)	1.1
Domestic demand	7.7	6.1	5.8	5.8	6.3	4.3	2.9	2.8
Exports	2.4	(11.7)	4.3	(0.4)	(1.7)	2.3	(0.8)	(0.7)
Imports	8.8	5.3	8.3	14.2	9.2	9.2	(0.9)	0.6
GDP	6.5	4.1	4.2	3.4	4.6	2.8	3.0	3.2

Source: DANE; calculations by *Banco de la República*

17. On the supply side (**Table 2**), trade activities (4.8%), agriculture (4.5%) and financial services (4.3%) were the most dynamic. Mining registered an annual contraction of 1.1%.

Real GDP Yearly Growth per branches of economic activity

Branch	2014				2014 Whole year	2015		
	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr		1st Qtr	2nd Qtr	3rd Qtr
Farming, forestry, hunting and fishing	6.2	0.3	1.9	0.8	2.3	1.7	2.6	4.5
Mining and quarrying	5.4	(2.4)	(0.9)	(2.7)	(0.2)	0.5	4.3	(1.1)
Manufacturing industry	4.6	(1.7)	(1.2)	(0.5)	0.2	(1.8)	(0.7)	2.5
Electricity, gas and water	4.6	3.8	3.9	2.9	3.8	2.3	1.7	3.7
Construction	14.0	8.6	11.1	6.0	9.9	4.7	8.6	0.8
Buildings	7.0	0.8	14.4	7.2	7.4	2.0	8.9	(8.1)
Civil works	24.4	14.7	6.8	4.2	12.0	6.7	8.4	8.5
Trade, repairs, restaurants and hotels	5.4	4.2	4.3	4.4	4.6	5.1	4.0	4.8
Transportation, warehousing and communication	4.8	4.4	4.2	3.2	4.2	2.9	0.5	1.8
Financial, real estate and corporate services	5.4	5.5	4.5	4.1	4.9	4.3	3.7	4.3
Social, community and personal services	7.7	5.6	4.9	3.8	5.5	2.7	2.5	3.1
Subtotal value added	6.6	3.8	4.0	3.1	4.4	2.7	3.0	3.1
Taxes minus subsidies	7.5	8.5	7.5	8.0	7.8	4.1	3.1	3.3
GDP	6.5	4.1	4.2	3.4	4.6	2.8	3.0	3.2

Source: DANE; calculations by *Banco de la República*

Table 2

18. The few indicators available for the fourth quarter show mixed results, but suggest that the economy would have continued to grow at a similar pace to that of the previous two quarters.
19. In the first place, the behavior of sales excluding vehicles and of confidence suggests that the performance of household consumption would have continued. According to the results of the monthly retail trade survey by DANE to October (EMCM), total retail sales showed a significant slowdown, growing 0.1%, explained mainly by the fall in vehicle sales (-27.2%). Excluding them, sales reported a 5.7% expansion. The trend components of total sales and those excluding vehicles show a positive slope and indicate that the good performance of the sector would have continued.
20. As for the labor market, with information to October, a break in the downward trend in the unemployment rate is observed. Its increments have been consolidated in a slight upward trend, even when controlling for seasonal effects. The increase of the UR is explained by the slowdown in employment, which is more stressed in urban areas and in non-salaried employment. The information available suggests that the nominal wage adjustments are stable.
21. On the other hand, in November 2015 the consumer confidence indicator of *Fedesarrollo* remained at levels similar to those observed in October. The indicator remains below the average calculated since 2001. This month, the indexes for economic conditions and expectations did not record significant changes.
22. On the supply side, uneven results were observed. The GDP of retail would continue exhibiting good dynamism, as suggested by retail sales already analyzed. Also, coffee production has sustained a yearly expansion above the goals of the sector and *Banco de la República's* central forecast scenario.
23. Contrastingly, in October and November expansion of oil and coal production was mediocre. Oil production ranked below one-million barrels (987,000 barrels per day), which meant an annual contraction of 1.5%. Production fell 0.9% in the October-November period. According to the information supplied by Ecopetrol, *El Niño* has affected transport of oil by waterways on barges during the fourth quarter of the year. On its part, coal production fell 1.5% in

the year to October, according to the Colombian Mining Association (ACM, in Spanish). The sector indicated that it would reach a production of coal between 78.5 and 80.5 million tonnes, a level that would be below that observed a year ago (80.7 million tonnes). It should be noted that the ACM groups information from 92% of the national production.

24. On its part, the industry expanded at rates lower than expected. Particularly, the figures published by DANE for October reported an annual increase of 1.3%, a figure lower than had been forecast by the technical staff of *Banco de la República*. Excluding oil refining, the remaining industries expanded 2.6%. So far this year, total industry and industry excluding refining increased 0.2% and 1.3%, respectively. Thus, the sub-branch of oil refining fell 5.2%. It should be noted that the impact of the opening of Reficar would take place in November and December, and that uncertainty regarding its final impact is high.
25. On the other hand, the behavior of construction of buildings after the surprising 8.1% fall in the third quarter is uncertain.
26. The scarce information available for the fourth quarter suggests that GDP would expand at a rate similar to that observed in the third quarter of 2015. This, together with the underestimation in the projection of GDP for the third quarter, allows forecasting that the output would most likely exhibit a yearly growth of 3.0% for 2015. However, it should be noted that there is considerable uncertainty about the performance of construction of buildings and the final impact of Reficar after its reopening. Considering the above, the range that may accompany the central forecast is between 2.8% and 3.2%.

III. Behavior of Inflation and Prices

27. In November, annual consumer inflation continued to increase at a significant rate, higher than expected by market analysts and by the technical staff of *Banco de la República* (**Table 3**). In this month, the result was 6.39% compared to 5.89% in the previous month. So far this year, the accumulated increase in the CPI amounts to 6.11%, well above the figure recorded in the

same period last year (3.38%). The variation of the month amounted to 0.60%, which is significantly higher than anticipated by the market (0.39%) and by the technical staff of *Banco de la República*.

28. The main upward pressures focused again on food prices and tradables (excluding food and regulated items).

29. Core inflation also maintained an upward trend in November. The average of the four indicators monitored by the Central Bank reached a figure of 5.40%, the highest since February 2009 and 29 basis points above the record of the previous month. With this, the average of the indicators completed 14 months of consecutive increases. This time, the four indicators increased, with the CPI excluding primary food, fuels and utilities exhibiting again the highest levels (5.85%) and the CPI excluding food the lowest (5.05%) (**Table 3**).

Inflation to November 2015

Description	Weight	Dec 2013	Dec 2014	Mar 2015	June 2015	Sept 2015	Oct 2015	Nov 2015	Participation in monthly acceleration (%)	Participation in acceleration so far this year (%)
Total	100.00	1.94	3.66	4.56	4.42	5.35	5.89	6.39	100.00	100.00
Non-food Inflation	71.79	2.36	3.26	3.46	3.72	4.58	4.75	5.05	43.48	46.58
Tradables	26.00	1.40	2.03	3.46	4.17	5.90	6.42	6.92	23.58	41.43
Non-tradables	30.52	3.76	3.38	3.56	3.98	4.27	4.34	4.39	2.92	11.71
Regulated items	15.26	1.05	4.84	3.25	2.55	3.30	3.14	3.66	16.98	(6.56)
Food Inflation	28.21	0.86	4.69	7.37	6.20	7.30	8.80	9.81	56.52	53.42
Perishables	3.88	(0.16)	16.74	21.57	10.73	14.95	21.54	23.31	13.56	12.94
Processed food	16.26	(0.24)	2.54	5.99	6.00	6.71	7.39	8.56	36.09	33.55
Eating out	8.07	3.26	3.51	3.59	4.45	4.73	5.28	5.67	6.87	6.93
Core Inflation Indicators										
Non-food Inflation		2.36	3.26	3.46	3.72	4.58	4.75	5.05		
Core 20		2.72	3.42	3.70	4.24	4.73	4.94	5.23		
CPI excluding perishable foods, fuels and utilities		2.19	2.76	3.95	4.54	5.28	5.54	5.85		
Inflation excluding foods and regulated items		2.74	2.81	3.52	4.06	4.95	5.21	5.45		
Average of Core Inflation Indicators		2.51	3.06	3.65	4.14	4.89	5.11	5.40		

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

Table 3

30. Of the three sub-groups that compose the CPI without food, the highest increase was recorded in tradables. Although this behavior was expected given the strong accumulated depreciation last month, the increase exceeded the forecasts of the technical staff of *Banco de la República*. The result of the annual CPI variation of tradables excluding food and regulated items for November was 6.92%, with a 50 bp increase compared to the previous month.

Today, the elasticity of the pass-through of the depreciation of the peso to the tradable CPI excluding food and regulated items has been close to 12.0%, surpassing that of the two immediately preceding depreciation periods (2006 with 10.0% and 2009 with 6.0%), but less than had been observed in 2003 (32.0%). It is important to note that previous studies have estimated the pass-through of the exchange rate to total inflation at around 4.0%.

31. In recent months, the vast majority of items that make up this basket have exhibited increases in their prices compared to previous months. Particularly, the most important increases in November took place in school supplies, products related to the personal care, vehicles and goods related to their use and jewelry, among others.
32. The annual variation of non-tradables excluding food and regulated items also increased, but to a lesser extent than that of tradables and lower than had been observed in previous months. The figure for November was 4.39%, 5 bp more than the figure for October (**Table 3**). Particularly, rents remained stable at 3.7%. On its part, annual variation of the most sensitive group to the exchange rate within this sub-group increased, standing at 5.4%. The prices of services such as health, education, haircuts and others continue to rise, and mostly conform to annual growth rates higher than 4.0%. Output gap estimates by the technical staff of *Banco de la República* suggest that demand pressures are scarce. However, it is possible that these prices are being affected by the activation of several indexing mechanisms.
33. On its part, annual CPI variation for regulated goods rose from 3.14% in October to 3.66% in November. Significant increases in aqueduct and electrical energy rates took place this month. In the first case, this is due to the fact that a 3 pp increase in total consumer inflation accumulated since the last time that these rates were readjusted. Under these circumstances, the regulator authorizes a revision of the fees. In previous years, with lower consumer inflation, the readjustments took place once a year, at most. In the case of energy, increases could be related to the sharp increase reported some months ago in its price on the stock exchange due to the presence of *El Niño*. As in previous months, in November the increases in the rates of utilities were partially offset by decreases in the internal price of gasoline, explained by the fall in the international price of oil.

- 34.Regarding food, prices continued to press consumer inflation upwards strongly in the last month. The annual CPI variation in this basket stood at 9.81% in November, about 100 bp higher than a month ago. Two phenomena would explain these increases. Firstly, adverse climatic conditions associated to a strong *El Niño* that would either be affecting crop productivity or would be postponing crops. This circumstance hits the prices of perishable products more strongly, whose annual variation has risen sharply in the last two months, reaching 23.3% in November (**Table 3**). The second factor corresponds to the accumulated depreciation of the peso which has particularly affected the prices of imported food products or those with a high percentage of imported components. This is reflected in the annual CPI variation of processed foods, which reached a value of 8.56% in November (117 bp more than in October). All of the above is in turn impacting the CPI for meals outside the household via costs.
- 35.The pressures of non-labor costs, measured through the PPI, increased again in November. Annual inflation to producers for domestic supply (produced and consumed plus imported) rose from 8.10% in October to 8.94% in November. This behavior is explained by the pressures exerted by the component of locally produced and consumed items (whose annual growth rose from 4.79% in October to 5.70% in November). On the contrary, the annual variation of the imported component of the PPI (18.35%) fell compared to that of the previous month (18.95%).
- 36.Regarding salaries, with information to October and November, wages continue exhibiting yearly adjustments which were consistent with the inflation target range. Those for heavy construction (3.7%) and housing (4.2%) showed no significant changes during November. Those for retail trade, on their part, exhibited a 4.2% adjustment in October.
- 37.Inflation expectations to the end of this year obtained from the monthly survey to financial analysts continued to increase significantly, moving from 6.24% to 6.67%, as registered in the survey performed in early December. Inflation expectations to twelve months obtained from the same survey also rose from 4.41% to 4.63%, while expectations to twenty-four months stepped from 3.55% to 3.83%. On average, so far to December 15, with the average data from November, inflations embedded in Colombian sovereign bonds (TES) in

pesos and UVR (Break-even Inflation, BEI) have remained stable for the 2-year term, reduced for 3 and 5 years terms (8 and 10 bp, respectively), and increased for the 10-year term (5 bp). Thus, average BEI so far in December to 2, 3, 5 and 10 years posted at 4.75%, 4.57%, 4.48%, and 4.77%, respectively.