PUBLIC VERSION

Working Papers from the Board of Directors Banco de la República

Monetary Policy Report

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Board of Directors

Banco de la República

Monetary Policy Report

Economic Studies Division

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I. External Context and Balance of Payments

1. In general terms, the new information shows few changes with respect to what was presented the previous month. Global economy seems to have continued its recovery driven primarily by the advanced economies.
2. The economic growth of the United States in the third quarter showed a surprising rise, considering that the climate shocks were expected to have a marked negative effect. The positive trend of the economy is expected to continue during the last quarter of the year.
3. The US labor market continues to register growth in employment and declines in the unemployment rate. However, the adjustment rate for wages dropped in October.
4. The third quarter information available for the eurozone also shows a more dynamic economic activity than expected. Consumer and business confidence remain at high levels.
5. Although inflation has shown an upturn in the advanced economies, it is still low, considering the positive dynamics of output and of the labor market.
6. During the third quarter, the Chinese economy grew 6.8% on a yearly basis. This percentage is higher than the one seen for 2016 as a whole (6.7%), and than the government's target for growth in 2017 (6.5%). Some analysts expect 6.6% for the fourth quarter.
7. In Latin America, the figures available on economic activity as of the second quarter exhibit a slight recovery in all of the countries monitored. The information available, as of the third quarter, for Chile and Colombia also demonstrates the rebound.
8. As of August, inflation showed a generally downward trend in the emerging economies. Mexico had been the exception in the region; however, in the last few months, prices have stopped rising.
9. Latin American currencies continue to show a tendency towards depreciation primarily based on the expectation of a tighter monetary policy in the United States.
10. As of September, Colombia's terms of trade remained at levels that were higher than those reached during 2016. They have shown a rebound because of the better international prices for oil over the past month. In the last few weeks, the Brent prices have been favored by the better outlook for global demand.
11. Significant capital inflows into emerging economies continued to be seen in October, especially in Asia. In Latin America, these flows declined in comparison to the previous month and somewhat considerable levels were seen only in variable income.
12. The CDS in Latin America have remained stable and at low levels during the last few weeks.

Export of Goods

13. In September, the US dollar value of total exports registered an annual 19.3% growth because of upswings in the three groups of goods. Foreign sales of mining products stood out (Table 1) with a significant increase in coal, both with regards to prices and quantities.
14. Foreign sales from the 'other exports' group[1] continue to exhibit positive levels that are close to the maximum for the last two years (with the exception of the level in August 2016, when there was a rebound after the trucking strike), which puts the growth for this month at 10.0%. (Table 1)
15. The agricultural group, in turn, grew mainly through the contribution of coffee. (Table 1)

Table 1: Trend of US dollar-denominated exports

	Annual Variation [Contribution]	Main contributing items to annual variation, in the same direction: Item	Annual variation of the item	Contribution to annual variation
September 2017				
Total Exports	19.3%			
Agricultural goods	11.8%	Coffee	22.7%	1.6
	[1.5]	Bananas	9.4%	0.2
Mining goods	26.2%	Coal	132.9%	17.3
	[14.6]	Oil	8.7%	2.3
Other exports*	10.0%	Foods, beverages, and tobacco, excluding coffee	41.2%	2.1
	3.1%	Non-metal minerals and basic metals	48.7%	1.0
Accumulated value for January - September 2017				
Total Exports	19.5%			
Agricultural goods	13.5%	Coffee	20.3%	1.4
	[2.0]	Flowers	7.2%	0.3
Mining goods	29.3%	Coal	54.9%	8.1
	[15.6]	Oil	20.1%	5.4
Other exports	6.1%	Foods, beverages, and tobacco, excluding coffee	16.4%	1.0
	[1.9]	Non-metal minerals and basic metals	25.5%	0.6

*Significant annual growth of foreign sales of this group of products to Ecuador and the United States were registered (20.9% and 10.4% respectively), while sales to Peru, Mexico, and Venezuela reduced 16.7%, 8.0%, and 14.1% respectively).

Source: DANE

16. From the beginning of this year to September, total exports grew 19.5% on a yearly basis because of the increase in sales abroad of the three groups of goods, especially that of mining products (29.3%).
17. So far this year, the annual change in the remaining exports group (6.1%) stayed positive for the fourth consecutive month after more than three years of

[1] Excluding oil and its derivatives, coal, nickel-iron, gold, coffee, bananas, and flowers. It includes other mining and agricultural products. Exports of manufactured products represented 96.4% of this group in September.

negative figures (from January 2014 to May 2017, with the exception of January of this year).

18. The year-to-date accumulated value of exports has grown as a consequence of the improvement in prices with an annual change of 19.1%, while the quantity index has grown 0.6%. This improvement in prices has occurred in the three groups of products, although mining products have stood out with a variation of 29.8% annually.
19. According to the foreign trade preview by DIAN, exports excluding oil and its derivatives registered an annual 12.2% increase in October.

Imports of Goods

20. The US dollar CIF value of imports showed an annual 5.6% fall in September due to reversals in the three groups of products. The most important decline was registered in capital goods. In this case, the majority of its segments contracted with the decrease in imports of aircraft[2] being the most important one (Table 2).

Table 2: Trend of US dollar-denominated Imports

September 2017				
	Annual Variation [Contribution]	**Main contributing items to annual variation, in the same direction:**		
		Item	**Annual variation of the item**	**Contribution to annual variation**
Total Imports	-5.6%			
Capital Goods	-10.0% [-3.1]	Transport Equipment	-44.3%	-2.8%
		Capital Goods for Industry	**1.1%**	**0.2%**
		Office Machines and Appliances	-12.3%	-0.6%
Raw materials	-3.9% [-1.7]	Food for Livestock (Agriculture)	-36.5%	-0.8%
		Chemical and Pharmaceutical Products for Industry	-5.0%	-0.7%
Consumer Goods	-2.9% [-0.7]	**Non durable consumption goods**	**-2.4%**	**-0.3%**
		Pharmaceutical Products and Toiletries	-9.8%	-0.4%
		Durable consumption goods	**-3.5%**	**-0.4%**
		Decoration, Personal Use, and Other Objects	-9.4%	-0.2%
Accumulated Value for January - September 2017				
Total Imports	4.4%			
Capital Goods	7.4% [2.2]	Transport Equipment	27.8%	0.9%
		Capital Goods for Industry	**3.5%**	**0.7%**
		Others - Fixed Equipment for Industry	12.2%	0.7%
Raw materials	3.7% [1.7]	'Mining Products	10.6%	0.9%
		Chemical and Pharmaceutical Products	3.2%	0.5%
Consumer Goods	1.8% [0.4]	**Non durable consumption goods**	**0.8%**	**0.1%**
		Clothing and other textiles	16.3%	0.2%
		Durable consumption goods	**3.1%**	**0.3%**
		Domestic Machines and Appliances	7.8%	0.2%

Source: DANE

[2] According to the DANE statistics, imports of aircraft or space navigation products (associated with aircraft) fell 42.4% on a yearly basis, thus contributing -2.1 pp to the decline of the group and of the total imports. This chapter is included in the segment of transportation equipment presented in Table 2.

21. Despite the monthly information, so far this year total imports have grown 4.4% on a yearly basis supported by increases in the three groups of products. During this period, the quantity and price indices showed an annual increase of 3.6% and 0.7%, respectively. This indicates that in spite of the fact that the increase in imports is due to a combined effect, the contribution of the quantities, which are concentrated in capital goods, is the most relevant.
22. According to the foreign trade preview by DIAN, CIF imports registered an annual growth of 9.4% in October.

Trade Balance of Goods

23. The accumulated trade balance for the year as of September has a deficit of 6.056 billion dollars FOB. This means a 33.1% reduction of the deficit compared to the same period during the previous year due to a growth of exports (19.0%) that was higher than that of imports (4.4%).

II. Growth, Domestic Demand, and Credit

24. The results of GDP growth for the third quarter of the year revealed a 2.0% annual expansion of economic activity. This figure is lower than the forecast by the technical staff at the *Banco de la República* in the previous Inflation Report (2.3%). This result implied a 0.8% increase between quarters, which corresponds to an annualized 3.2% growth.
25. When broken down by component, domestic demand grew 1.6% in comparison to the same period in 2016. This figure is lower than what is registered for the second quarter (1.9%), which was mainly affected by the lower dynamics of gross capital formation. This is due above all to the poor performance of investment in construction of buildings and in transportation equipment, which contracted 15.8% and 5.0% respectively on a yearly basis. Total consumption exhibited a performance that was similar to that of the previous quarter (2.1% annually). Net exports contributed positively to GDP growth (Table 3).

Table 3: Real Annual GDP Growth – Demand

Branch of activity	2016				2016	2017		
	1st Q	2nd Q	3rd Q	4th Q	Whole Year	1st Q	2nd Q	3rd Q
Total consumption	**3.0%**	**2.3%**	**0.9%**	**1.8%**	**2.0%**	**1.7%**	**2.1%**	**2.1%**
Household consumption	2.8%	2.1%	1.0%	2.2%	2.0%	1.3%	1.4%	1.7%
Non-durables	3.4%	2.2%	1.2%	1.4%	2.1%	1.4%	2.6%	2.9%
Semi-durables	1.2%	1.1%	-1.5%	-0.8%	0.0%	-4.1%	-3.6%	-1.5%
Durables	-4.6%	-5.6%	-3.7%	11.2%	-0.8%	6.0%	-3.4%	3.6%
Services	3.4%	3.1%	1.9%	2.4%	2.7%	1.7%	2.1%	1.5%
Government final consumption	3.8%	3.0%	0.2%	0.4%	1.8%	2.6%	4.2%	3.9%
Net Capital Formation	**-4.1%**	**-4.7%**	**-6.2%**	**-3.1%**	**-4.5%**	**0.0%**	**1.4%**	**0.2%**
Fixed net capital formation	-4.0%	-4.0%	-3.6%	-2.9%	-3.6%	-0.8%	1.1%	0.2%
Farming, forestry, hunting and fishing	6.1%	7.4%	4.2%	-0.7%	4.2%	3.9%	3.5%	-0.5%
Machinery and equipment	-15.2%	-12.3%	-18.8%	-13.8%	-15.1%	-3.7%	2.8%	6.4%
Transport equipment	-20.6%	-7.2%	-14.6%	-4.8%	-11.9%	8.1%	-1.2%	-5.0%
Construction and building	10.7%	1.2%	10.6%	0.7%	5.6%	-7.5%	-7.9%	-15.8%
Civil works	-1.0%	0.8%	3.8%	6.1%	2.4%	3.8%	6.9%	8.9%
Services	2.9%	-1.3%	4.4%	1.3%	1.8%	3.7%	0.5%	-1.0%
Domestic Demand	**1.3%**	**0.5%**	**-1.1%**	**0.5%**	**0.3%**	**1.5%**	**1.9%**	**1.6%**
Total Exports	**0.9%**	**1.8%**	**-3.5%**	**-2.8%**	**-0.9%**	**-4.7%**	**-1.7%**	**4.5%**
Total Imports	**-5.9%**	**-3.6%**	**-10.8%**	**-4.2%**	**-6.2%**	**-0.4%**	**3.7%**	**2.5%**
GROSS DOMESTIC PRODUCT	**2.5%**	**2.5%**	**1.2%**	**1.6%**	**2.0%**	**1.2%**	**1.3%**	**2.0%**

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

26. By branches of activity, the sectors that grew the most during said quarter were agriculture and financial services. In contrast, mining, construction, and industry presented significant contractions (Table 4).

Table 4: Real Annual GDP Growth - Supply

Branch of activity	2016				2016	2017		
	1st Q	2nd Q	3rd Q	4th Q	Whole Year	1st Q	2nd Q	3rd Q
Farming, forestry, hunting and fishing	-0.3%	0.6%	-0.6%	2.2%	**0.5%**	**7.8%**	**4.0%**	**7.1%**
Mining and quarrying	-4.6%	-6.8%	-6.6%	-8.3%	**-6.5%**	**-9.1%**	**-5.7%**	**-2.1%**
Manufacturing	4.0%	5.4%	1.4%	1.0%	**3.0%**	**0.4%**	**-3.4%**	**-0.6%**
Electricity, gas and water	2.8%	-0.6%	-1.4%	-0.6%	**0.1%**	**-0.5%**	**1.3%**	**1.9%**
Construction	5.3%	0.8%	7.1%	3.1%	**4.1%**	**-0.8%**	**0.3%**	**-2.1%**
Buildings	11.1%	1.7%	11.7%	0.3%	**6.0%**	**-7.1%**	**-7.7%**	**-15.9%**
Civil works	-0.5%	1.0%	3.8%	5.2%	**2.4%**	**4.0%**	**7.0%**	**8.8%**
Retail, repairs, restaurants, and hotels	2.8%	1.9%	0.7%	1.8%	**1.8%**	**-0.4%**	**1.0%**	**1.4%**
Transportation, warehousing, and communications	1.0%	0.2%	-1.5%	-0.2%	**-0.1%**	**-0.8%**	**0.7%**	**0.2%**
Financial, real estate, and corporate services	4.3%	5.2%	4.8%	5.4%	**5.0%**	**4.7%**	**3.8%**	**3.2%**
Social, community, and personal services	3.5%	3.5%	1.1%	0.9%	**2.2%**	**2.8%**	**2.9%**	**3.2%**
Subtotal value added	2.6%	2.3%	1.3%	1.5%	**1.9%**	**1.2%**	**1.1%**	**1.6%**
Taxes minus subsidies	1.3%	3.9%	0.6%	2.8%	**2.2%**	**2.7%**	**3.3%**	**5.0%**
GROSS DOMESTIC PRODUCT	2.5%	2.5%	1.2%	1.7%	**2.0%**	**1.3%**	**1.2%**	**2.0%**

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

27. This confirms that the economic slowdown, generated in part by the decline in the terms of trade, probably bottomed out in the first half of the current year.
28. The information available for the fourth quarter is still very limited and does not make it possible to revise the GDP growth forecast with any certainty. Nevertheless, some indicators suggest that the performance of economic

activity during this period would probably be slightly lower than in the third quarter, but higher than in the first half of the year.

29. Based on the information as of October, the Consumer Confidence Index (CCI) declined slightly with respect to what had been registered in September. Its level remains negative and below the average calculated as of November 2001. While the Index of Economic Conditions (ICE in Spanish) for households declined slightly, the one for Medium and Long-term Consumer Expectations (IEC in Spanish) rose.
30. With respect to the labor market, the seasonally adjusted series ending in September shows upswings in the unemployment rate (UR) at the national level and that of the 13 most important metropolitan areas. In this geographical area, the growing trend of the UR persists, as does the almost null growth of employment, which has already lasted more than a year. Based on information for the quarterly moving average ending in September, the seasonally adjusted series also shows stability for formal, salaried employment and reductions in informal, non-salaried employment for the thirteen areas.
31. The latest information available with regard to nominal wages for construction, industry, and commerce indicates that these are still adjusting to rates that are above the inflation target.
32. Real imports of capital goods as of October (according to DIAN) suggest that gross capital formation other than construction of buildings and public works will probably slow down in the fourth quarter.
33. On the supply side, the few indicators available show an uneven behavior.
34. Production of oil in September stood at 863.8 thousand barrels per day in October, which represented a 2.1% rise in comparison to the same month last year.
35. The total energy demand grew 2.7% in October. The trend component showed a flattening. The regulated component grew 3.6%, and the non-regulated component grew 0.9%.
36. In contrast, according to the *Federación Nacional de Cafeteros* (National Coffee Growers Federation) coffee production may have fallen around 23% and been at 1,073,000 bags in October. Nevertheless, the sector has grown 0.7% so far this year.
37. Given the updated information on the GDP for the third quarter and what has been registered by the few indicators available for the fourth quarter, some of the downside risks in the growth forecast for 2017, which was estimated at 1.6% in the previous Report, may be materializing. Note that if DANE does not revise the data on growth in previous quarters, this latter figure would be reached with a 1.8% annual increase of the GDP in the fourth quarter.

III. Behavior of Inflation and Prices

38. Annual consumer inflation went from 3.97% in September to 4.05% in October, this being the third consecutive increase in annual inflation since July 2016 (Table 5).

Table 5: Consumer Price and Core Inflation Indicators

Headline and Core Inflation to October 2017

Description	Weight	Dec 2016	Mar 2017	June 2017	Sept 2017	Oct 2017	Participation percentage in monthly deceleration	Participation percentage in deceleration of the year to-date
Headline inflation	**100.00**	**5.75**	**4.69**	**3.99**	**3.97**	**4.05**	**100.00**	**100.00**
Non-food inflation	**71.79**	**5.14**	**5.13**	**5.12**	**4.71**	**4.70**	**-5.52**	**19.15**
Tradables	26.00	5.31	5.59	4.41	3.41	3.38	-6.84	26.66
Non-tradables	30.52	4.85	5.33	5.21	5.21	5.23	9.56	-6.12
Regulated items	15.26	5.44	4.05	6.01	5.68	5.61	-8.24	-1.40
Food inflation	**28.21**	**7.22**	**3.65**	**1.37**	**2.22**	**2.51**	**105.52**	**80.85**
Perishables	3.88	-6.63	-13.09	-14.72	-0.32	3.20	193.88	-27.12
Processed food	16.26	10.74	6.28	3.29	0.84	0.52	-64.59	94.33
Eating out	8.07	8.54	8.94	7.62	6.01	5.78	-23.76	13.64
Core inflation indicators								
Non-food inflation		5.14	5.13	5.12	4.71	4.70		
Core 20		6.18	6.01	5.31	4.87	4.73		
CPI excluding perishable foods, fuel and utilities		6.03	5.61	5.07	4.31	4.13		
CPI excluding food and regulated items		5.05	5.44	4.87	4.44	4.44		
Average of core inflation indicators		**5.60**	**5.55**	**5.09**	**4.58**	**4.50**		

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

39. So far this year, the total CPI has accumulated a 3.50% increase, which is below the inflation registered during the same period last year (5.19%).
40. The monthly change in October was 0.02%, a figure that is lower than expected by the market (0.09%) and by the technical staff at the Central Bank.
41. The increase in annual inflation during the past month was concentrated in the CPI for perishable food and on a lower scale in the CPI for non-tradables excluding food and regulated items. In contrast, the CPI for tradables (excluding food and regulated items), regulated items and processed food, and meals outside the home, put downward pressure on annual inflation.
42. Core inflation, measured as the average of the four indicators monitored by *Banco de la República*, continued its downward trend, standing at 4.50%, i.e., 8 bp less than in the previous month. The performance of this indicator, which has presented a declining trend since August last year, contrasts with the increase in annual inflation over the last two months.
43. All of the core inflation indicators declined or remained stable in October. The CPI excluding basic food, fuel, and public utilities (4.31% to 4.13%), and the core 20 CPI, the one with the highest level (4.87% to 4.73%) declined, while there were no significant changes in the CPI excluding food and regulated items (4.44%) or in the CPI excluding food (4.70%) (Table 5).

44. Within the CPI excluding food, the subgroup of tradables excluding food and regulated items (which saw its annual change go from 3.41% in September to 3.38% in October) continued to put downward pressure on annual inflation just as it has been doing without interruption since last February. The aviation transportation strike that started on September 20 and ended on November 10 did not cause airline tickets to rise more than 0.60% in October; however, due to a statistically low basis of comparison, their annual change climbed notably (from -2.06% in September to 2.21% in October). Vehicles, *aguardiente*, detergents, bleach, and some items of clothing led the decline in the annual inflation of tradable goods.
45. It should be noted that during the second week of November, a reduction in the price of the beer that is widely consumed and that has the best sales in the country was announced. This should have an impact on the measurement of tradables for that month. In addition, the rise of the indirect taxes, which had their strongest effect during the first few months of this year, will entail a drop in the annual adjustments of the CPI for tradables during the first quarter of 2018 due to the statistical basis of comparison.
46. The annual change in non-tradables (5.23%) did not exhibit any significant changes in October. This segment of the CPI has demonstrated a high level of stability in the last seven months as it swung between 5.20% and 5.25%. Within the non-tradables, there was upward pressure on soccer tickets (included in the group called remainder, which had an annual variation that went from 5.04% in September to 5.29% in October). The CPI for leasing exhibited stability (4.20% in September vs. 4.22% in October). The CPI for the items within the non-tradables group most affected by the exchange rate declined (from 6.91% to 6.71%), while the sub group of indexed items, which includes education and health services, remained stable at 6.94%.
47. The annual change for regulated prices was 5.61%, having declined 7 bp with respect to September. Transportation was the only component that decreased (from 5.17% in September to 4.35% in October). The price of gasoline, in turn, did not increase in October, as a result of which the annual change in the CPI for fuel increased slightly (from 9.77% to 9.83%). Utilities is the subgroup that rose the most (from 4.84% to 5.39%) largely due to the effects of a low basis for comparison.
48. In the coming months, there should be an increase in the CPI for public transportation due to the mandatory implementation (with the beginning of next year as the maximum deadline) of the new technological platform for charging for taxi services in Bogotá. (This increase is estimated to be close to 7.0%). Likewise, in the first few months of next year, increases in the sanitation fees are expected in Bogotá based on the announcement from the mayor’s office in that city.

49. The annual change in the CPI for food, which is the third consecutive adjustment during the current year, went from 2.22% in September to 2.51% in October. This increase, which is somewhat lower than anticipated, is exclusively explained by the CPI for perishable food for which the annual adjustment went from -0.32% to 3.20%. Perishables went up due to potatoes, some fruit, and legumes. In contrast, the subgroups that declined were processed foods (from 0.84% in September to 0.52% in October) and eating out (from 6.01% to 5.78%).
50. The recent increases in annual food price inflation have been modest and do not seem to be related to any deterioration in agricultural supply. In fact, the rise in the GDP for agriculture during the third quarter surpassed 7.0% and the levels of food supply in the wholesale markets in October and November are still high. This being the case, the rebound in food price inflation is explained by a relatively low basis of comparison during the same period last year when the prices normalized once the events causing it –*El Niño*, and the trucking and agricultural strike– disappeared.
51. Non-labor costs, estimated by the PPI, have risen for four complete consecutive months, although the pace of adjustment is still low. Indeed, annual PPI inflation for the total domestic supply (produced and consumed domestically plus imported items) went from 1.17% in September to 1.38% in October. This increase in inflation for producers is due to both the internally produced and consumed component (from 1.55% to 1.61%) and the imported component (from 0.32% to 0.85%).
52. Labor costs presented mixed trends based on the latest information available and continue to adjust to rates that are above the inflation target. The annual change in wages in the manufacturing industry declined between August (7.9%) and September (7.1%). In contrast, wages in retail rose as from 5.6% to 6.1%. Furthermore, the wage adjustments in housing construction rose between September (5.7%) and October (6.0%), and those for heavy construction (4.2%) did not show any significant changes. According to the technical staff's most recent estimate, the unemployment gap is likely to widen in 2017. No additional pressure on wages or, via its effect on costs, on prices, should take place in the next few months as a result of this.
53. According to *Banco de la Republica's* most recent monthly survey to financial analysts (done at the beginning of November), inflation expectations for December this year fell between October (4.07%) and November (3.95%). Likewise, the expectations to 12 months contracted (from 3.63% to 3.54%). In turn, inflation expectations for 24 months ahead remained stable (3.37%).
54. Inflation embedded in public debt bonds (Break Even Inflation, BEI) which is drawn from the peso-denominated TES and UVR up to 21 November stands at 3.23%, 3.31%, 3.42% and 3.59% for 2, 3, 5, and 10 years, respectively. With

respect to the average for October, the BEI varied between -2 bp, -4 bp, -3 bp, and 5 bp, respectively, for these same horizons.

55. Using the Forward Break-Even Inflation (FBEI) curve, the estimate for 2017 annual inflation is 4.05% (obtained by adding the accumulated current inflation to the expected inflation for what remains of the year.) This corresponds to 3.40%, 3.51%, and 3.58% for 2018, 2019, and 2020, respectively.