PUBLIC VERSION

Working Papers from the Board of Directors Banco de la República

Monetary Policy Report

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Board of Directors
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Economic Studies Division

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I. External Context and Balance of Payments

1. The global economy has been showing a better performance than expected in the previous quarterly report. This phenomenon, which had been limited to advanced economies, has spread to some of the emerging economies, and has been accompanied by more favorable prices for some commodities.
2. Growth of the advanced economies continues to be led by the United States, whose GDP accelerated significantly in the second quarter. Towards the third quarter, several demand indicators continue to exhibit a positive dynamics. However, recent climatic phenomena temporarily impacted some indicators of manufacturing and retail trade. Because of this, growth is expected to be lower in the third quarter.
3. Although inflation in the US increased in September, registering a yearly 2.2%, core inflation indicators continue below 2.0%. The measure preferred by the Fed, the implicit consumption deflator, stood at 1.3% in August. On the other hand, there has been a rise in wages, which accelerated their growth in September to 2.9% per year.
4. In the euro zone, growth continued with a positive trend during the second quarter, supported by both domestic demand and exports. The available information suggests that this dynamics continued during the third quarter. It must be highlighted that consumer confidence remained at the highest levels in the last 16 years, and the PMI for manufacturing continued to increase.
5. Despite some slight acceleration in recent months, inflation in the euro zone continues to post below 2.0%. In September, it stood at 1.3% per year. This situation is even more evident for core inflation, which posted at 1.1% in the same month.
6. The growth of the Chinese economy has been better than expected in the previous Report. During the third quarter, it increased 6.8% on a yearly basis, a figure higher than in 2016 (6.7%) and to the growth target for 2017 (6.5%).
7. In Latin America, information on GDP growth in the second quarter shows some signs of recovery in the economies monitored by the technical staff of the Central Bank. This would have been particularly strong in the case of Ecuador, which would have stepped from registering an annual 1.5% fall in the third quarter of 2016 to an annual 3.3% growth in the second quarter of 2017. This entailed a strong upward revision of analysts' forecasts for that country.
8. Inflation in Latin America to September shows a downward trend, except for Mexico. The latter would be associated with the accumulated depreciation of the Mexican peso and to supply shocks.
9. Colombia's terms of trade during the third quarter have exhibited some recovery, mainly explained by higher oil prices. The price of this product would be responding to a greater demand and to a production figure that grew less than expected earlier. Additionally, prices would have been driven by the successful implementation of the OPEC agreements.

Exports

10. In August, the value in US dollars of total exports recorded an annual 1.5% growth, explained by increases in external sales of agricultural goods and mining, which offset the fall of the rest of exports[1] (Table 1).
11. This modest behavior responded, in part, to a high basis for comparison in August 2016, when some exports were offset after the downturn in July 2016 caused by the trucking strike. However, significant positive variations are obtained from the measures related to the trend of the series.
12. Given this, in other exports, despite the 6.2% annual fall, this group recorded its highest level of the year.

Table 1: Behavior of Exports in US dollars

	August 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 Exports	1.5%			
Agricultural goods	23.5%	Coffee	23.3%	1.3
	[2.5]	Flowers	22.1%	0.7
Mining goods	2.0%	Oil	20.4%	4.4
	[1.1]	Ferronickel	75.1%	0.9
Other exports*	-6.2%	Chemical Products	-17.9%	-1.9
	[-2.1]	Machinery and Equipment	-34.9%	-0.6
Accumulated value for January - August 2017				
Total Exports	19.5%			
Agricultural goods	13.7%	Coffee	19.9%	1.4
	[2.1]	Flowers	8.7%	0.4
Mining goods	29.7%	Coal	45.5%	6.8
	[15.7]	Oil	21.7%	5.8
Other exports	5.5%	Foods, beverages, and tobacco, excluding cof	13.6%	0.8
	[1.8]	Non-metal minerals and basic metals	22.6%	0.5

*The five main destinations of these exports fell, highlighting the decline in external sales to Venezuela, Mexico, and the United States, with annual rates of -53.2%, -17.3%, and -19.4%, respectively, in August.
Source: DANE

13. On the other hand, so far this year, total exports have grown 19.5% annually, as a response to the increase in external sales of the three groups of goods, particularly in mining goods (29.7%). The annual variation of the group of other exports so far this year (5.5%) remained positive for the third consecutive month, after standing for

[1] Excluding oil and its derivatives, coal, nickel, gold, coffee, bananas, and flowers. Includes other mining and agricultural goods. Exports of manufactured goods accounted for 95.1% of this group in August.

over three years in negative figures (from January 2014 until May 2017, except for January this year).

14. As for the accumulated value for this year, the figure for exports increased as a result of improvements in prices (with a significant annual increase of 19.7%), while the figure for quantities barely increased 0.1%. This improvement in prices took place in the three groups of goods, highlighting mining goods with a 30.5% annual variation.
15. According to the foreign trade preview by DIAN, in September, exports excluding oil and its derivates recorded an annual 29.0% increase.

Imports

16. In August, CIF imports in US dollars registered an annual 0.6% fall, to which the decline in external purchases of raw materials and consumer goods contributed (Chart 2). This offset the growth of capital goods, which was important due to the import of aircraft[2] (Table 2).
17. These growth figures are also influenced by a high basis of comparison; however, following measures related to the trend of the series, positive, although slight variations are obtained.

Table 2: Behavior of Imports in US dollars

[2] Import of aircraft and their parts increased 694% annually, contributing 3.2 percentage points to the growth of total imports. Excluding this item, total imports would fall 3.8% on a yearly basis, and imports of capital goods would barely grow by 0.3%.

	August 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	-0.6%			
Capital Goods	11.5% [3.3]	Transport Equipment Construction Materials	166.1% 15.4%	3.2 0.4
Raw materials	-7.7% [-3.7]	Fuel Food Products for Industry	-28.8% -15.0%	-2.9 -0.8
Consumer Goods	-0.7% [-0.2]	**Non durable consumption goods** Clothing and other textiles **Durable consumption goods** Vehicles for Private Use	**2.7%** 25.0% **-5.1%** -14.2%	**0.4** 0.3 **-0.5** -0.7
	Accumulated Value for January - August 2017			
Total Imports	5.7%			
Capital Goods	9.9% [2.9]	Transport Equipment Fixed Equipment for Industry (others)	50.2% 11.9%	1.4 0.7
Raw materials	4.7% [2.2]	Mining Products Chemical and Pharmaceutical Products	12.0% 4.3%	1.0 0.6
Consumer Goods	2.5% [0.6]	**Non durable consumption goods** Clothing and other textiles **Durable consumption goods** Domestic Machines and Appliances	**1.3%** 15.9% **4.0%** 9.7%	**0.2** 0.2 **0.4** 0.2

Source: DANE

18. So far this year, total imports have increased 5.7% on a yearly basis, thanks to the increases in the three groups of goods. In this period, the indexes for quantities and prices exhibited 4.9% and 0.8% annual increases, respectively. This suggests that, despite the fact that the increase in imports is due to a combined effect, the contribution to quantities (focused on capital goods) is more significant.
19. According to the preview for foreign trade by the DIAN, in September, CIF imports recorded a yearly fall of 5.7%; however, this figure could also is influenced by a high basis for comparison, due to large values for imports in the field of aircraft and their parts in September 2016.

Balance of Trade for Goods

20. The accumulated value of the trade balance so far to August registered a deficit of USD $4,869 m FOB. This represents a 28.0% reduction *vis-à-vis* the same period last year, due to higher increase of exports (19.5%) versus imports (5.8%).

II. Projections of External Variables

a. External Growth Scenarios

Baseline or more likely scenario (Table 3)

21. This report revised growth forecasts for the country's main trading partners upwards, compared to the information presented in the July quarterly report. In the coming quarters, domestic demand would continue to drive growth in advanced economies. For emerging economies, a modest recovery is expected supported by greater demand by advanced economies and better terms of trade. Thus, growth of trading partners is projected to recover in 2017 compared with 2016, a trend that would continue into 2018.
22. The growth figure for the United States was revised slightly downward for 2017, despite the good data observed in the second quarter, also considering a negative effect of the climate events that took place during the third quarter. Consumption would continue driving the economy, supported by continuous improvement of the labor market.
23. In the baseline scenario, an increase of the FED's policy interest rate is expected in December, and two more during 2018. This implies a path for this rate higher than had been forecast in the previous Report. Therefore, by the end of 2018, its upper limit would be at 2.0%. The baseline scenario does not take into account considerable effects on financing conditions on account of the program for the balance sheet reduction that began this month.
24. In the baseline scenario, the US government economic policies are not expected to have positive or negative effects during 2017 or 2018.
25. Growth in the euro zone was revised upwards for 2017 and 2018, reflecting recent results that have been better than expected earlier. This would be a result of improvements to the political outlook in several countries, which would have boosted the confidence of consumers and entrepreneurs.
26. For this report, in the baseline scenario, no effects of Brexit are expected on the growth figure for the euro zone.
27. The European Central Bank’s monetary policy would continue to be expansive, although less than had been considered before, in the light of the recent announcements. Additionally, inflation is expected to remain at low levels.
28. As for China, the growth forecast for 2017 and 2018 increased, considering the good results of the third quarter. Forward-looking, this economy would be favored by the greater demand from advanced economies. Additionally, the conversion process of this economy to one more dependent on domestic consumption is expected to continue taking place in an orderly manner.

29. In Latin America, growth for 2017 was revised upwards in two of the countries monitored by the technical staff: Brazil and Ecuador. It remained unchanged for Mexico and Chile, and was reduced for Peru and Venezuela.

30. As for 2018, growth figures were revised upward for Brazil, Ecuador, Peru, Mexico and Chile. For the next year, only the expectations for Venezuela have been revised downward.

31. Despite this relatively favorable outlook, global growth continues to face significant downside risks. Some of them are:

- Relatively high levels of global indebtedness that could affect global financial stability.
- A lower-than-expected investment in the US if the reductions promised in taxes are not made.
- An eventual implementation of policies that may negatively affect growth, particularly in the USA.
- A greater geopolitical risk.
- A further increase in the FED's policy rate, which could endanger the recovery of global economic activity.

32. On the other hand, there are upside risks, among which we can mention:

- Lower inflation, more persistent due to structural reasons, which would allow for a more expansionary monetary policy in the euro zone or the US than considered in the baseline scenario.
- A greater-than-anticipated cyclical recovery of global economy.

33. With this, this report increased the forecast of the average oil price per barrel (Brent). Particularly, an average price of US $53 per barrel (Brent) is projected for 2017[3], and US $55 per barrel for 2018. Several factors would keep it at higher-than-expected levels in the forecast horizon:

- The OPEC agreement would continue to be met.
- Oil demand by advanced economies and China would be greater than expected a quarter ago, which contributes to higher prices.
- Although production would continue to increase, it would start doing so at a slower pace, given that it would be closer to its equilibrium level.

[3] This forecast implies an average price of US $53.50 per barrel in the fourth quarter for Brent oil.

Table 3 Economic Growth Forecasts for Colombia's Major Trading Partners

Country or region	2017			2018		
	Low	Baseline	High	Low	Baseline	High
US	1.9	2.1	2.3	1.2	2.2	3.2
	1.8	2.2	2.6	1.0	2.2	3.0
Euro Zone	1.9	2.1	2.3	1.0	1.9	2.5
	1.4	1.8	2.2	0.5	1.6	2.2
China	6.6	6.8	6.9	5.4	6.4	6.8
	6.2	6.6	6.8	5.2	6.2	6.8
Brazil	0.2	0.6	1.0	0.6	2.2	3.2
	-0.3	0.4	1.0	0.4	2.1	3.2
Ecuador	0.0	2.0	2.5	0.0	1.0	2.0
	-1.5	0.0	0.8	-1.5	0.5	1.5
Venezuela	-10.0	-8.0	-6.0	-5.0	-2.0	0.0
	-10.0	-7.0	-2.0	-5.0	-1.0	1.0
Perú	2.3	2.8	3.3	3.0	4.2	5.0
	2.4	3.0	3.6	3.0	4.0	5.0
Mexico	1.5	2.0	2.5	1.3	2.3	3.0
	1.2	2.0	2.8	1.0	2.2	3.0
Chile	1.0	1.4	1.8	1.4	2.7	3.4
	0.8	1.4	2.0	1.0	2.6	3.5
Trading Partners	1.4	2.0	2.4	1.5	2.4	3.3
	1.1	1.8	2.4	1.2	2.3	3.0
The current forecast is shown in black. The forecast from the previous quarterly report is shown in red.						

b. Projection of the Balance of Payments

34. With results to June 2017, the information available to date for the third quarter and the external context scenario presented hereinbefore, the new estimate of the current account deficit for 2017 is 3.7% of GDP (USD 11,493 m) in the baseline scenario, with a 3.4% deficit for the low-growth scenario, and 4.0% for the high-growth scenario. Uncertainty about the conditions and availability of financing, as well as

the sensitivity of some capital flows to the prospects of the general economic activity, determine this range.

35. The current account deficit projected for 2017 is lower than in 2016, when it reached 4.4% of GDP (USD 12,305 m). This correction is mostly explained by the lower deficit in the trade of goods, mainly as a result of the expected improvement in the terms of trade (Table 4). In addition to this, higher income from current transfers would contribute positively to the narrowing of the external imbalance. On the contrary, a widening of the deficit of non-factor income services and factor income is expected, due to a great extent to the improvement in export prices.

36. Thus, the additional adjustment to the current account deficit for 2017 would be explained not by a reduction of expenditures, as happened in 2016, but by the increase in revenues, mainly due to exports of goods.

37. Particularly, an annual 10.9% growth is estimated for exports of goods in the baseline scenario, particularly due to increases in the international prices of the main products. For the rest of goods (other than mining and main agricultural products), yearly growth is expected to be 6.4, which contrasts with the fall observed in 2016 (-8.4%). As for imports in US dollars, an annual 3.5% increase is expected, driven by the dynamism observed mostly in the first half of the year.

38. Additionally, in 2017, the services trade is expected to reach a higher deficit than observed a year ago. This is due to the increase in expenditures, for which higher payments of freight are expected, given the increase of imports and of the price of oil. Also, increases of imports of services related to the oil industry are forecast, and higher payments for financial and insurance services. On the other hand, growth associated with tourism and other business services (advisory and consultancy services and *call centers*) are estimated to increase.

39. Compared to 2016, an increase in net outflows from factor income is forecast, associated with the increase in the profits of companies of the mining and energy sector and to the higher payments of interests on loans and bonds.

40. Regarding the forecast presented a quarter ago, the current account deficit for 2017 remained relatively stable in US dollars and as a proportion of GDP. However, when analyzing by items, the growth estimate of non-traditional exports and export volumes of some basic goods were revised upwards, while the value of imported goods was reduced. This led to a reduction of the trade deficit greater than had been forecast in the previous Report. This offset the upward revision of the deficit of factorial income and services. The estimate of income through remittances was also revised upwards.

Table 4: Outlook for the current account of the balance of payments

	2016	2017 Baseline	Variation
CURRENT ACCOUNT (A+B+C+D)	**-12,305**	**-11,493**	**812**
Percentage of GDP	***-4.4%***	***-3.7%***	***0.7%***
A. Goods	**-9,857**	**-7,751**	**2,106**
Exports	33,382	37,011	3,629
Imports	43,239	44,762	1,523
B. Non-factor Services	**-3,159**	**-3,474**	**-316**
Exports	8,012	8,362	350
Imports	11,171	11,837	666
C. Factor Income	**-5,113**	**-6,621**	**-1,509**
D. Transfers	**5,823**	**6,353**	**530**

41. As for capital flows, in 2017, resources from direct investment are expected to be the main source of financing, followed by portfolio investment. Net amortizations would be recorded in external loans and other credits (Table 5).
42. Foreign direct investment flows in Colombia would record an annual 6.2% fall as a result of the base effect from the sale of Isagen in 2016. Estimated FDI flows are higher than expected a quarter ago, due to the resources received from companies in the communication industry. Higher inflows are also estimated for the mining and energy sector, given the favorable performance of international prices.
43. Additionally, net capital inflows of portfolio investment are expected, largely associated with the purchase of TES by foreigners and, to a lesser extent, with the issuance of Government bonds in external markets.
44. In contrast, due to loans and other external credits, the country would record net capital outflows caused by the prepayment of credit and—to a lesser extent— to the lower indebtedness with multilateral agencies, as opposed to the forecast in the previous Report.

Table 5: Outlook for the current account of the balance of payments

	2016	2017 Baseline	Variation
FINANCIAL ACCOUNT (A+B+C+D)	**-12,683**	**-11,135**	**1,548**
Percentage of GDP	*-4.5%*	*-3.6%*	*0.9%*
A. Direct Investment (ii-i)	**-9,210**	**-9,136**	**74**
i. Foreign Investment in Colombia	13,726	12,881	-845
ii. Colombian Investment abroad	4,516	3,745	-771
B. Portfolio Investment	**-3,718**	**-3,509**	**209**
C. Other investment (loans, credits, and other derivatives)	**80**	**964**	**885**
D. Reserve Assets	**165**	**546**	**381**
ERRORS AND OMISSIONS	**-377**	**359**	

45. For 2018, the current account deficit to GDP is estimated at 3.6%, which is equivalent to a slightly higher level in US dollars than was forecast for 2017. A widening of the trade deficit in goods is anticipated due to the expected growth of imports in line with the recovery of economic activity, while exports would grow at

a moderate rate, given the low increase that export prices would exhibit. Growth of total exports would be largely explained by the greater dynamism of external sales of industrial goods, in a context of higher growth of the main trading partners.

46. For 2018, the services deficit is estimated at levels similar to those of 2017, as a result of the good performance of exports favored by higher global growth and investment processes in previous years in sectors such as tourism. Additionally, growth of outflows would continue, driven by the payment of freight, the recruitment of technical services related to oil, and the effects of higher growth rates of the economy on travel expenditures.
47. Higher net outflows due to factorial income are expected compared with 2017, mainly due to the higher interest payments on external debt, and to a lesser extent, to the increase of the profit from foreign companies, especially those that operate in areas other than the mining and energy sector.
48. An additional factor that would contribute to a lower deficit in 2018 could be the increase in income from current transfers, as a result of the higher growth expected from countries where remittances are originated, particularly USA and some Latin American countries.
49. The forecast range for the current account deficit in 2018 would be between 3.1% and 4.2% of GDP, determined by the risks that exist on the cost and availability of external financing, as well as by global growth and improvement of the country's terms of trade.

III. Growth, Domestic Demand, and Credit

50. The information available on real activity in Colombia suggests an acceleration of the pace of GDP growth for the third quarter of 2017. These signs of a better performance are due partly to the low basis for comparison observed in the same period last year, when different sectors were affected by the transport sector strike. However, disregarding such effect, there was also a recovery of GDP dynamics. This allows us to assert that the slowdown bottomed out during the first half of 2017.
51. The dynamics observed for the seasonally adjusted series in the monthly economy activity indicator (ISE) by DANE confirms this. This indicator increased 1.5% on a yearly basis in August, a behavior that represented a slowdown *vis-à-vis* the records from July (3.0%, influenced by last year's low basis for comparison), but which allowed the aggregate of the July-August two-month period to grow 2.3% yearly (vs. 1.7% in the second quarter of 2017).
52. In the third quarter, annual growth of domestic demand would have increased, mainly driven by an acceleration of investment. Total consumption would have registered expansions slightly above those observed in the first half of the year,

thanks to a better performance of the public component. The private sector, however, would have reported a similar dynamics as in previous quarters. Net exports, on the other hand, would be subtracting from GDP growth.

53. Regarding private consumption, the related indicators support the previous forecasts. According to the results of the monthly retail survey (EMCM) by DANE, retail in August fell 0.8% on a yearly basis. However, the aggregate for the two-month period of July-August recorded a 1.1% expansion compared to the same period last year, which represented an acceleration of retail sales *vis-à-vis* -0.5% in the second quarter.
54. Excluding vehicle sales, the remaining aggregate fell 0.3% compared to the same month in 2016. The aggregate for the bimester grew 1.0 % on a yearly basis, which also suggests acceleration versus the figure from the second quarter (0.1%).
55. On the other hand, the index of vehicle sales fell 3.5% on a yearly basis in August. However, the aggregate for the bimester grew 1.9% compared to the same period last year, a better performance compared with observations from the second quarter (-4.0% per year).
56. Other indicators also allow to forecast a performance of household consumption similar to that of previous quarters. In September, the consumer confidence index (ICC) recovered slightly versus the levels recorded in August, but it remains below the average calculated since November 2001. With this figure, the average of the aggregate index for the third quarter was only slightly higher than in the second quarter.
57. The seasonally adjusted series of the sales balance of *Banco de la República's* Monthly Survey of Economic Expectations (EMEE) with figures to August, does not suggest a dynamic behavior of private consumption in that month.
58. The results of the series for labor market do not allow to forecast a high performance of private consumption for the third quarter of 2017. With figures to August, the seasonally adjusted series of the unemployment rate shows stability at national level, but continues its increasing trend for the thirteen areas for over a year. As for employment, the number of individuals employed in the thirteen areas remains stagnant. For this same geographical domain, with information from the mobile quarter ending in August, there were increases in non-salaried and informal employment higher than the growth figures corresponding to formal and salaried employment.
59. Regarding gross capital formation, the figures for imports of capital goods (in constant pesos) from the third quarter of 2017 suggest new increases of investment in machinery and equipment, and transport equipment. However, with figures to August, the seasonally adjusted series of the balance of investment expectations of the EMEE showed a setback.
60. As for international trade, the figures published by DANE to August and the information published by DIAN to September suggest growth of real exports and

imports. In the first case, such recovery would be consistent with the information reported for foreign sales of mining products, coffee, and non-traditional goods. In the case of imports, growth would have been driven by the purchase of capital goods, mainly.

61. On the supply side, although the indicators available suggest uneven behaviors, they also suggest that GDP growth in the third quarter would have been greater than in the first half of the year. According to these, part of the recovery of economic activity observed on the supply side would also be explained by the effect of the low basis for comparison *vis-à-vis* a year ago due to the trucking strike.

62. According to figures from DANE, total real industrial production fell 3.1% on a yearly basis in August, after a significant 6.3% increase in July due to the low basis for comparison. With this result, the two-month period of July-August expanded 1.6% yearly, which contrasts with the significant contraction of the previous quarter (-3.1%). Excluding oil refining, the rest of the industry exhibited a yearly 3.3% contraction[4]. So far this year, total industry and industry excluding oil refining fell 0.7% and 2.0% on a yearly basis, respectively.

63. As for agriculture, the Colombian Coffee Growers Federation reported that coffee production in September was 1,228,000 60-kilo bags, which implied a 18.8% increase on a yearly basis. For the aggregate of the period from July to September, production showed a yearly expansion of 17.4% (vs. -17.3% in the second quarter). On the contrary, cattle slaughter showed a 7.0% annual setback in August, and in the July-August period it fell 3.5% on a yearly basis.

64. The data for oil production in September (852 mdb, on average) registered a slight annual fall (-0.8%). However, in the third quarter, production stood at an average 856 mdb, which represents an annual 1.5% growth.

65. As for construction, cement production recorded a 8.5% fall on a yearly basis in August. Although the trend component shows a slight positive slope, the level-6 moving average fell 0.3% on a yearly basis. Building permits increased 1.0% annually in August. However, the accumulated value for twelve months continues to fall (-11.3%).

66. Lastly, the total energy demand increased 1.5% on a yearly basis in September. The trend component of the series continues to exhibit a positive slope. The regulated component grew 2.2%, and the non-regulated one by 0.6%. It is important to note that energy demand by the industry continues to fall 4.3% on a yearly basis.

67. With this, the staff at the Central Bank forecasts that yearly GDP growth for the third quarter of 2017 would have posted between 1.8% and 2.8%, with 2.3% as the most likely figure.

68. This report maintains the GDP growth forecast for 2017 at 1.6%, but contained within a narrower range than the one referred to in the June report (between 1.3%

[4] Industrial production excluding oil refining grew 1.2% annual in the July-August two-month period of 2017.

and 1.9%, compared with the range presented a quarter before between 1.0% and 2.0%). It also revised upward the central forecast and the forecast range for GDP growth in 2018. Thus, it is estimated that real activity growth will be around 2.7% next year, within a range between 1.5% and 3.5% (vs. 2.4% in the previous quarter, between 1.0% and 3.0%).

IV. Behavior of Inflation and Prices

69. Annual headline inflation in September was 3.97%, i.e., 10 basis points (bp) higher than in August. This is the second month of consecutive increase in annual inflation since July 2016, when it reached a maximum of 8.97% (Table 8).
70. So far this year, accumulated CPI inflation rose to 3.49% in September, below the level observed in the same period last year (5.25%).
71. The monthly variation was 0.04%, a figure significantly lower than had been expected by the market (0.18%) and by the technical staff.
72. The CPI for perishable food and regulated items were the two main components of the family basket which contributed to increase yearly headline inflation in the last month. Contrastingly, the CPI for tradables, together with that for processed foods and meals outside the home, exerted downward pressures.
73. In September, there was a decline in core inflation again, measured as the average of the four indicators monitored by the Central Bank, standing at 4.58% (16 bp less than in the previous month). The performance of this indicator, which shows a decreasing trend since August last year, contrasts with the increase in annual inflation over the last two months.
74. All core inflation indicators declined in September. The CPI excluding primary food, fuel, and public utilities (from 4.56% to 4.31%) and the CPI excluding food and regulated items (from 4.59% to 4.44%) fell the most. Similarly, the core 20 CPI (with the highest level, from 5.00% to 4.87%) and the CPI excluding food (from 4.81% to 4.71%) also fell (Table 8).

Table 8:

Headline and Core Inflation to September 2017

Description	Weight	Dec 2016	June 2017	July 2017	Aug 2017	Sept 2017	Participation percentage in monthly deceleration	Participation percentage in deceleration of the year to-date
Headline inflation	**100**	**5.75**	**3.99**	**3.40**	**3.87**	**3.97**	**100.00**	**100.00**
Non-food inflation	**71.79**	**5.14**	**5.12**	**4.79**	**4.81**	**4.71**	**(56.85)**	**18.04**
Tradables	26.00	5.31	4.41	4.09	3.75	3.41	(77.96)	25.16
Non-tradables	30.52	4.85	5.21	5.20	5.23	5.21	0.79	(5.41)
Regulated items	15.26	5.44	6.01	5.03	5.57	5.68	20.32	(1.70)
Food inflation	28.21	**7.22**	**1.37**	**0.20**	**1.69**	**2.22**	**156.85**	**81.96**
Perishables	3.88	(6.63)	(14.72)	(16.92)	(6.81)	(0.32)	328.08	(17.20)
Processed food	16.26	10.74	3.29	2.24	1.71	0.84	(146.89)	87.20
Eating out	8.07	8.54	7.62	7.10	6.30	6.01	(24.34)	11.96
Core inflation indicators								
Non-food inflation		5.14	5.12	4.79	4.81	4.71		
Core 20		6.18	5.31	5.22	5.00	4.87		
CPI excluding perishable foods, fuel and utilities		6.03	5.07	4.88	4.56	4.31		
CPI excluding food and regulated items		5.05	4.87	4.72	4.59	4.44		
Average of core inflation indicators		5.60	5.09	4.90	4.74	4.58		

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

75. Within the CPI excluding food, the subgroup of tradable goods excluding food and regulated items (whose annual variation fell from 3.75% in August to 3.41% in September) was the only one that pressed yearly inflation downwards in the last month. The air transport strike that began at the end of September did not impact the CPI for airfares, which fell 1.2% on a yearly basis in the month. Several items regarding household appliances and electronic devices continued to show declines in their prices; however, increases were observed in the CPI for vehicles and cell phones.

76. It should be noted that the CPI for tradables received the greatest impact on account of the increases in indirect taxes in the last tax reform. Its annual variation showed a decreasing trend since June last year, which was interrupted in the first two months of this year by said impact, but has taken up since March.

77. As mentioned in the last Report, for the first months of 2018, a reduction in the annual variation of the tradable component of the CPI is expected due to a high statistical basis for comparison, on account of the increases associated with the VAT increase in 2017.

78. In September, annual variation of non-tradables remained very close to 5.2%, as can be seen since April this year. In this month, the decline in the price of rentals stands out (from 4.27% to 4.20%), as does the sub-group of others (from 5.07% to 5.04%), which was offset by increases in items affected indirectly by the exchange rate (from 6.68% to 6.91%) and in indexed items (from 6.87% to 6.94%).

79. Annual variation of regulated items increased from 5.57% in August to 5.68% in September. Within regulated items, the subgroup of public utilities was the only one that increased (from 4.47% to 4.84%) due to a very low statistical comparison for energy, rather than to increases in the service rates. In contrast to the behavior of

public utilities, in September, annual variations in the CPI of fuels and transport decreased (from 9.92% to 9.77%, and from 5.3% to 5.17%, respectively).

80. Increases are expected in the rates of garbage collection and sewage in Bogotá towards the beginning of 2018, as announced by the Mayor. Similarly, an increase in the CPI for public transport is expected due to the introduction of a new technological platform and update of taxi fares in Bogotá (an increase close to 7.0% is estimated).

81. In September, annual food inflation rose for the second month in a row, reaching 2.22% compared to 1.69% in August. This increase was concentrated in perishable foods (from -6.81% to -0.32%), driven by the prices of products such as potatoes, and some fruits and vegetables.

82. The recent upward trend in annual food inflation is not explained by a deterioration of the agricultural supply. In fact, a high food supply was recorded in September and so far into October, which was reflected in a negative monthly variation of the corresponding CPI in September (-0.40%). The acceleration of inflation of this group is due more to a relatively low basis for comparison in the same period last year, when prices began to return to normal after the upward-pushing impact of *El Niño* and the trucking strike. A similar phenomenon should continue taking place in the next two months, for which food is expected to continue driving annual inflation to a hike.

83. Regarding non-labor costs, for the third month in a row, an adjustment to the increase in yearly inflation of the PPI for total domestic supply (domestically produced and consumed items plus imported items) took place, moving from 0.95% in August to 1.17% in September. This higher inflation to producers can be explained both by the component of domestically produced and consumed (from 1.29% to 1.55%), as by the imported component (from 0.18% to 0.32%).

84. Labor costs exhibited mixed results, according to the latest information available. The annual adjustment rate for wages in the manufacturing industry decreased between July (8.8%) and August (8.0%), while the rate for wages for trade increased (from 5.6% to 5.0%). On the other hand, wages for housing construction (5.7%) and heavy construction (4.3%) showed no significant changes between August and September. According to the latest estimate by the technical staff, 2017 is expected to end with a wider unemployment gap than the one observed last year, for which no additional pressures are expected on wages in the remainder of this year that may affect production costs and prices.

85. According to the latest monthly survey to financial analysts by the Central Bank (applied at the beginning of October), inflation expectations to December this year fell from 4.18% in September to 4.07% at the beginning of October. Something similar happened with expectations to twenty-four months (which moved from 3.39% to 3.37%) Inflation expectations to twelve months remained stable (3.63%).

86. The quarterly survey of expectations with information to October 2017 points out that the market expects an annual inflation rate of 4.30% to December 2017, a lower level *vis-à-vis* the one observed last July (4.43%). Similarly, inflation expectations to 12 and 24 months contracted (from 3.95% in July to 3.92% in October, and from 3.85% to 3.83%, respectively).

87. Inflation embedded in public debt bonds (Breakeven inflation, BEI) extracted from TES denominated in pesos and UVR to October 24 is at 3.25%, 3.35%, 3.43%, and 3.54% to 2, 3, 5, and 10 years, respectively. Compared to the average in August, the average BEI increased -2 bp, -1 bp, -1 bp, and -1 bp for these same horizons, respectively.

88. Using the Forward Break-Even Inflation (FBEI) curve, the estimation of annual inflation for 2017 is 4.34% (obtained by adding the accumulated inflation observed for the remainder of the year to inflation expectations). For 2018, 2019 and 2020, it is 3.50%, 3.56% and 3.57%, respectively.