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OF DIRECTORS
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Bogotá, 4 April 2018

To:
PRESIDENTS AND OTHER MEMBERS
Honorable Chairmen and Members of the Third Standing Constitutional Committees
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The House of Representatives

Dear Sirs:

In compliance with Article 5, Act of Congress 31/1992, the Board of Directors of *Banco de la República* hereby submits to the Congress of the Republic of Colombia a report on the macroeconomic results for 2018 and the outlook for 2019 for its consideration. In the following chapters, the breakdown of the international reserves and their performance, the financial position of the Central Bank and its forecasts, and the Bank's management of cultural assets are described.

Cordially,



Juan José Echavarría
Governor

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Introduction

The performance of the country's economy in 2018 and during the first months of 2019 can be characterized by two fundamental facts: the beginning of the recovery in economic growth and the convergence of inflation to its long-term target. Both events have great macroeconomic significance because they show that the economy is approaching its equilibrium, in which the spare capacity is reduced within a context of price stability, such as is implied by the fact that inflation is on the target. However, the current account deficit expanded in 2018, indicating that the country needs to make significant efforts to diversify and strengthen its exports.

Growth

The National Administrative Department of Statistics (Departamento Administrativo Nacional de Estadística - DANE) reported that in 2018 the GDP grew at a rate of 2.7%. This result determined a turning point in the deceleration trend caused by the strong shock to the terms of trade, which reduced the annual growth rate from 4.4% in 2014 to 1.4% in 2017. This change in the direction of the economic cycle shows that, having finished the adjustment process after the fall in oil prices, the country's economy was able to lay the foundations for recovery. Thus, the same forces that led to the slowdown—such as the tightening of credit conditions, the increase in risk premia, and the loss of consumer and business confidence—now act in the opposite direction, driving the recovery. The question, then, is not whether the country's economy will recover, but at what speed it will continue to do so. In this regard, analysts' forecasts are diverse, but suggest higher growth rates than in 2018, both for the present year as for years to come.

As will be discussed in detail in the Report, the increased economic activity in 2018 was driven by the strengthening of domestic demand, whose annual growth rate was 3.8%, *vis-à-vis* 1.2% in 2017. The reactivation of domestic demand was driven by the increase in consumption, both for households (3.5%) as for the Government (5.9%). Added to this is the greater dynamics of gross capital formation during the second half of the year, which had had a 3.5% expansion in 2018, despite having contracted during the first half of the year.

Household consumption was favored by a moderately expansionary monetary policy, which induced a reduction in the interest rates of

consumer credit, which stimulated the dynamism of this portfolio during the second half of the year. Additionally, the gradual fading of the inflationary effect of the increase of the value added tax (VAT), together with the early decline of headline inflation in the first quarter of 2018, improved the purchasing power of consumers. On the other hand, public consumption performed well throughout the year.

The acceleration of domestic demand was greater than that of economic growth. This was due to the fact that net external demand (exports minus imports) contributed negatively to GDP growth as a result of a more rapid expansion of real imports (8.0%) than exports (1.2%). Although greater strength of exports would have been desirable, the rapid increase in external purchases is not necessarily unfavorable to the economy, because that depends on its composition. In 2018, imports of capital goods accounted for 31% of total imports, and imports of raw materials for 46%. Both types of imports were the most dynamic during the previous year, each one with growth rates close to 11.5%. Said imports expand the capacity of the country's industrial and agricultural productive activities, which will allow these items to improve their contribution to economic growth henceforth.

All the branches of economic activity grew in 2018, except for mining. The expansions of professional, scientific, and technical activities (5.0%), and public administration and defense, education, and health (4.1%) stand out. Similarly, the sectors of retail sales, repair, transportation, and accommodation, as well as those of information and communications, achieved growth figures of 3.1% on a yearly basis, higher than in 2017. The manufacturing industry, stimulated by the greater dynamics of domestic demand, showed a significant recovery by achieving a 2.0% growth figure, versus the 1.8% contraction in 2017. The agricultural sector expanded 2.0%, a rate below that of 2017 (5.5%), due to the reduction in coffee production and other crops that were affected, among other factors, by unfavorable weather conditions. Construction exhibited a low but positive (0.3%) growth figure, which contrasts with the 2.0% contraction observed in 2017. This was helped by the rebound of civil works in the last quarter of the year (7.8%). Finally, mining reported a further contraction in 2018 (-0.8%), although of lesser magnitude than a year ago (-5.7%). This is explained by the strong setback in coal production (-6.5%) due to weather factors and delays in the processes of expansion. This was partially offset by increased oil and natural gas production, which grew 1.4%, stimulated by higher oil prices recorded along the year.

The GDP growth forecast for 2019 stands around 3.5%, above the average growth rate forecast by the International Monetary Fund (IMF) for Latin America (2.0%). This forecast suggests that domestic demand would strengthen at a faster rate than in 2018. Tax incentives for business investment would contribute to this by allowing companies to deduct from their income tax payment the VAT for the purchase of capital goods and 50% of the tax on industry and trade.

Other factors might contribute to boost investment, such as: 1) a greater implementation of resources by regional governments, as is often the case with

local authorities during their last year in office; 2) a boost on territorial investment thanks to the financing of infrastructure works with resources from royalties; and 3) progress in the construction of fourth generation roads (4G).

On the other hand, total consumption would grow similarly to the previous year. The recovery trend of household consumption would continue to be stimulated by low inflation, a slightly expansive monetary policy stance, and the gradual recovery of consumer confidence. In contrast, Government consumption would be less buoyant than in 2018, which is consistent with moderation by the National Government in spending, which is necessary to comply with the fiscal rule.

The increase in economic activity in 2018 is not yet reflected in a reduction of the economy's urban and rural unemployment rate, since there still spare capacity is in the economy. Inasmuch as economic recovery consolidates, reductions in the economy's unemployment rate will begin to be seen.

Inflation

Regarding the performance of headline inflation, at the end of 2018, the consumer price index (CPI) was 3.18%, that is, 91 bp lower than the level observed in 2017 (4.09%). This decline concentrated between the months of January and April, and henceforth inflation remained within a range between 3.1% and 3.3%.

By reviewing the performance of the groups comprised by the index, it may be observed that the descent of headline inflation in 2018 was explained by the decrease of the price variation of the basket excluding food, which fell from 5.01% in 2017 to 3.48% in 2018. The dissolution of upward pressures arising of the increase in the VAT and other indirect taxes and the moderate demand pressures within an environment of spare capacity contributed to this. In this category, the reduction of non-tradable inflation stood out, increasing from 5.49% in 2017 to 3.79% in 2018. This was an important step forward, considering that until 2017 this group exhibited a strong resistance to decline, showing inflation rates ranging around 5.0%, which prevented a faster convergence of inflation to its target. Additionally, there was a significant drop of tradable inflation, which went from 3.79% in 2017 to 1.09% in 2018. This contrasts with the strong increases recorded in this group of goods in previous years. The absence of a pass-through of the depreciation of the last quarter of the year to the prices of these goods contributed to this result. The group of regulated goods and services was the single line in this category that did not contribute to the reduction of inflation, since it increased from 5.86% to 6.37% between 2017 and 2018, mainly due to the increase in the rates of energy and water, as well as to increases in fuel prices. On the other hand, annual food inflation exhibited a moderate increase (from 1.92% in 2017 to 2.43% in 2018) as a result of a very low basis for comparison in 2017, stable or declining international prices of agricultural raw materials, and a wide domestic agricultural supply.

The downward trend of headline inflation continued in the first quarter of the year; therefore, at the end of February 2019, consumer price inflation reached 3.01% on a yearly basis. A result as close to this to the 3.0% target had not been seen since September 2014. Several factors contributed to this result¹. Non-food inflation continued to decline, moving from 3.48% in December 2018 to 3.14% in February. Annual variation in the prices of tradables did as well, falling from 1.09% to 0.85%, confirming that the pass-through of depreciation of the exchange rate to prices has been limited. Annual non-tradable inflation also recorded a further decline, moving from 3.79% in December to 3.38% in February. Also, regulated inflation, which reached a 6.37% peak in 2018, reduced to 5.65% on a yearly basis in February. Annual variation of the prices of regulated items increased from 2.43% in December to 2.84% in February. However, this was a moderate increase, in line with the expectations. Finally, in February, the average of the four core inflation indicators stood at 2.81% on a yearly basis, a figure under 3.0%. All core inflation indicators declined in the month, except for Core 20.

The monthly survey on expectations applied by the Central Bank to financial system analysts showed a reduction in inflation expectations for the end of 2019, moving from 3.41% (as estimated from the February survey) to 3.23% in March. This revision incorporated the inflation figure observed in February, which suggested that some inflationary risks considered at the beginning of year such as the 6.0% increase in the minimum wage, the fear of a pass-through of depreciation to prices, the high inflation figure for regulated items, and *El Niño* did not materialize. Lower inflation expectations are an important element in favor of price stability.

The forecasts of the technical staff regarding the behavior of inflation for the remainder of 2019 and 2020 consider risk scenarios that the Board of Directors will monitor henceforth. The first includes a path of inflation of regulated goods and services that could remain above 5.0% in the forecast horizon. This would result in upward pressures on observed inflation and its expectations, which could require a timely review of the monetary policy stance. Despite this, upward pressures on consumer prices would be moderate, so in this scenario inflation at the end of 2019 would register a level similar to that observed in 2018. A second scenario considers more favorable domestic and external financial conditions, which would help reduce risk premia and would lead to a slightly lower exchange-rate path. In this case, the annual variation of prices of tradable goods would be lower, which would allow inflation at the end of 2019 to stand around 3.05%.

External Context

During 2018, external conditions were favorable for the Colombian economy. According to the International Monetary Fund (IMF), global economy grew 3.1%,

¹ Starting in 2019, DANE introduced a new basket for the consumer price index. However, in order to make the comparison with 2018 easier, we refer here to the previous basket and classification.

which was reflected in the improvement in the terms of trade and increased demand for exports. Global growth was led by the dynamism of the economy of the United States (2.9%), driven by fiscal stimulus and private consumption, together with the expansion of the Chinese economy (6.6%). Emerging and developing economies reached an average growth figure of 4.2%, while Latin America and the Caribbean expanded 0.6% all together, which ranked as one of the regions of lowest economic dynamism. However, Colombia's trading partners showed a 2.5% growth figure in 2018, as had happened in 2017.

The price of oil presented a notable increase that lasted until the first week of October, when it reached a peak of USD 86 per barrel for the Brent reference. As a result, the average price of crude oil for the January-October period stood at USD 73.4 per barrel, above the initial forecast of USD 62 per barrel for the average of the year. Thanks to this, the accumulated value of oil exports for the period from January to October increased at a 28.9% rate on a yearly basis. This favorable dynamism began to revert during the last quarter of the year, as oil prices fell due to the increase in crude oil production in the United States, Saudi Arabia, and Russia, as well as to the easing of sanctions on exports from Iran. Thus, the growth of oil exports for all 2018 ended up being somewhat lower (24.1%) than had been observed until October. Total exports experienced a similar cycle, and by the end of 2018 grew 10.4%.

During the last quarter of 2018, trade tensions between the United States and China, along with the stopping of fiscal and monetary stimuli in advanced economies, exacerbated concerns about the duration of the global expansion, thus affecting the international investors' risk perception. This was reflected in an increase in the international financial volatility indicators and in generalized declines in stock markets. However, the announcements of the Fed at the end of 2018 brought calm to the markets, suggesting that the conditions of international liquidity will remain ample. This allowed some reduction of risk premia and the recovery of other indicators, including stock indexes. As for some emerging economies (including Colombia), messages from the Fed contributed to a slight appreciation of their currencies in the wake of the significant depreciation observed in the last quarter of last year.

Despite returning to calm, the global economy continues to face significant risks related to the negative effects of tariff escalation by the United States and China, which could have an effect on the reduction of the volume of world trade. Besides the resurgence of trade tensions, other factors could provoke further deterioration of the risk perception. Among them are high levels of indebtedness by the United States, China and other advanced and emerging economies; the uncertainty facing Brexit; and a stronger-than-expected slowdown in China. In the case of Italy, concerns about sovereign and financial risks have been a ballast for domestic demand, while new contractions are forecast for the economies in Turkey and Argentina.

In this context, in mid-January, the IMF revised its forecasts of global growth downwards (3.0% for 2019 and 2.9% for 2020). For Latin America, the World Bank estimated that economic activity will continue recovering, albeit at a

slower pace than had originally been forecast, as it would reach 1.7% in 2019 and 2.4% in 2020. As for Colombia, these external contingencies could stand for a lower average growth of its trading partners, a decline in the price of oil and other commodities exported by the country, and an increase in sovereign risk premia. This would generate pressures to the depreciation of the exchange rate, which, passing through to the prices of tradable goods and imported raw materials, would lead to inflationary pressures. On the contrary, more lax financial conditions, together with lower increases in interest rates in the United States, should they take place, would enable international liquidity to remain wide, which would boost increased capital flows to the country.

The risks that a deterioration in the performance of global economy would bring to the country's economy renew the need to assess the situation of the current account deficit as well as its funding, given the vulnerability of the country on that front. By reporting the results of the balance of payments for 2018 and presenting the forecasts for 2019, this report contributes to such analysis.

After the oil shock, the country's economy experienced a dramatic deterioration in its current account, moving from a 5.2% deficit in the GDP in 2014 to 6.3% of GDP in 2015. The strong expansion of the external imbalance took place due to the reduction in the value of mining and oil exports, and to a lesser extent of industrial exports, as a result of the drastic fall in international prices for oil and other commodities and by the weak growth of the country's trading partners, which contracted the demand for our exports. Subsequently, in 2016 and 2017, the external imbalance experienced a significant correction, achieving a current account deficit of 4.2% and 3.3% of GDP, respectively. Initially, this correction was produced by a significant fall in imports and of the profits of the oil companies with foreign capital. This adjustment pattern changed in 2017 as a response to a rebound of exports and other external income that exceeded the increase of imports. This form of adjustment was considered as more favorable for the recovery of economic activity, as was informed in the previous Report to Congress.

In 2018, there was a setback in the adjustment of the external imbalance when a current account deficit of 3.8% of GDP was registered, greater by 0.5 pp to the one observed a year ago. In absolute terms, the deficit amounted to USD 12,661 million (m), higher by USD 2,364 m to the one registered in 2017. This deterioration took place due to an acceleration in the pace of growth of expenditure flows, in contrast with the slowdown of revenue. The increase in external expenditure was explained by an increase in imports, mainly of raw materials and capital goods, which exceeded the increase of exports. As a result, the trade deficit expanded by USD 745 m. Added to this were the higher profits of companies with foreign direct investment (FDI) in Colombia, mainly those that operate in the fields of transport, storage, and communication; oil exploitation; mining and quarrying; and trade, restaurants, and hotels.

For 2019, the technical staff at the Central Bank forecasts that the current account deficit would continue to expand to a level that could exceed 4.0% of

GDP. This would be explained by the lower prices envisaged for oil and coal, on average, and by the moderation in the growth of external sales of industrial goods (which in 2018 grew 6.3%), in a context of slow growth of commercial partners and a lower global trade dynamics. Additionally, imports of goods are expected to continue expanding, which is consistent with its forecasts of a more dynamic domestic demand and recovery in private investment. On the other hand, the increase in exports of services, along with the lower remission of profits of oil companies with foreign capital, would contribute to prevent a greater external imbalance.

As is the case for Colombia, a current account deficit that may be financed in the short-term should not cause alarm. For example, in 2018, the financial account of the balance of payments recorded net capital inflows of USD 11,981 m (3.6% of GDP), which originated in FDI (USD 11,010 m), in the net disbursement of loans and other external credits (USD 8,784 m), and in the investment portfolio in the local market (USD 2,706 m). These revenues were partially offset by net payments on debt securities issued in international markets (USD 2,357 m). On the other hand, the flow of Colombian direct investment abroad amounted to USD 5,122 m, mostly by companies in the financial and manufacturing sectors. Additionally, Colombian capital outflows of foreign portfolio investment totaled USD 1,571 m, of which USD 1,241 m were made by public sector companies and USD 330 m by the private sector.

For 2019, despite the projected increase of the current account deficit, the projections of the balance of payments do not identify constraints to its financing. However, although no external financing difficulties are anticipated for Colombia in the short-term, it would not be prudent to maintain an excessive dependence on the country's external liabilities to finance shortages in domestic savings, as this could lead to a risky situation. For this reason, it would be desirable for the country to reduce its current account deficit in the medium term to a range between 2.5% and 3.0% of GDP, which is considered sustainable, according to analyses of the technical staff.

To this end, it would be necessary to achieve a greater dynamism and diversification of exports, which have long been concentrated in the natural resources sector, mainly oil. An external adjustment that compresses external purchases would not be appropriate because the country needs to continue importing raw materials and capital goods to consolidate its recovery. That is why it is important to identify new sources of exports for the industrial, agricultural, and services sectors. This topic makes part of the research agenda of the Central Bank.

Facing the external context described above, the Board of Directors of *Banco de la República* (BDBR) considered it appropriate to review the criteria for the evaluation of the adequate level of international reserves, in order to take into account the financing structure of the economy. The latter approach has gained relevance due to the fact that the participation of foreign investors in the public debt market in Colombia began to increase since 2011 and accelerated from 2014, reaching 25% in 2018. Additionally, more emphasis was given to

measures of liquidity coverage to estimate the level of reserves that would be required to absorb a temporary shock reducing the sources of external funding and allowing to withstand possible capital outflows. In these exercises, besides the current level of reserves, the Flexible Credit Line (FCL) with the IMF and its possible reduction after its expiry in May 2020 were considered.

The latter finally pushed the Board of Directors to start a program of accumulation of international reserves. Such a program does not interfere with the monetary policy stance because the Central Bank uses the instruments needed to ensure that the short-term interest rate of the economy be consistent with the intervention rate determined by the Board.

It should be noted that the program does not pursue any type of objective regarding the exchange rate. For this reason, it was considered that the most appropriate mechanism for the accumulation of reserves was to intervene the foreign exchange market through *put* options. These options generally have a one-month maturity, the price for the exercise is equal to the representative exchange rate in the market (TRM), and they are negotiated with the foreign-exchange market intermediaries authorized for that purpose. The condition of the exercise is that the TRM be below its average of the last twenty working days. This prevents *Banco de la República* from buying US dollars when the Colombian peso is depreciating against its average of the past twenty days. The auctions have been performed on a monthly basis, and their amount has been announced at the time they are summoned. This mechanism has been used in the past by the Central Bank with similar purposes. To 21 March 2019, USD 1,539.9 million had been accumulated through this mechanism. As a complement, last February, *Banco de la República* purchased USD 1,000 m of the National Government's portfolio in US dollars.

Within the economic context described above, in its sessions in January and April 2018, the BDBR decided to make two 25 bp cuts in the policy rate, which led to a level of 4.25%, where it has remained ever since. Thus, in March 2019, the Board of Directors completed eleven months without modifying its benchmark interest rate, maintaining a slightly expansionist level. It should be remembered that the gradual decrease in the policy rate began in December 2016, from a 7.75% peak. Due to the lag with which monetary policy acts, a good part of the cumulative 350 bp cut was transmitted to market interest rates throughout 2018, which provided a significant stimulus to economic growth.

01

International Context

In the second half of 2018, the global economy grew at a slower pace than before. A slowdown in international trade was seen. It was also characterized by high volatility in the financial markets and in the prices of raw materials.

For 2019, global productive activity is expected to slow down slightly, primarily in the advanced economies. Moreover, some international financial conditions are expected that are less restrictive than had been forecast at the end of 2018. This could favor capital flows to emerging economies.

During the second half of 2018, the global economy grew at a slower and less synchronized pace than it had been. This explains why the growth projections for advanced and emerging economies made by various international entities were more conservative and mixed. The volatility in the financial markets and in the prices for raw materials, the tightening of financial conditions towards the end of the year, and the softening of international trade fueled the lower outlook for global growth. In this context, the international investors have, to a large extent, been more selective of the markets where they choose to place their investments since the end of 2018. This is generating a wider dispersion of the capital flows to countries, especially those towards emerging countries.

In the first few months of 2019, the financial markets have shown more optimism about the progress in the trade negotiations between China and the United States as well as with respect to the signals given by the United States Federal Reserve (Fed) and the European Central Bank (ECB) regarding the trajectory of interest rates.

This section is divided into two parts: the first focuses on the second half of 2018 which was characterized by high volatility while the second encompasses 2019 to date and the outlook for this year. The second period has been characterized by less disturbed markets which is reflected by higher capital inflows into emerging economies.

1.1 Performance during the Second Half of 2018

At market prices, the levels of global growth were below earlier forecasts and stood at 3.0% in 2018, based on calculations by the World Bank, and at 3.1% according to the International Monetary Fund (IMF) and the United Nations (UN)¹ (Table 1.1).

Table 1.1
Growth Rates of the Regions Based on the World Bank, the International Monetary Fund (IMF), and the United Nations (UN) (percentage)

	World Bank						IMF						UN					
	PPP ^{a/}			Market prices			PPP ^{a/}			Market prices			PPP ^{a/}			Market prices		
	2018 ^{b/}	2019 ^{b/}	2020 ^{b/}	2018 ^{b/}	2019 ^{b/}	2020 ^{b/}	2018 ^{b/}	2019 ^{b/}	2020 ^{b/}	2018 ^{b/}	2019 ^{b/}	2020 ^{b/}	2018 ^{b/}	2019 ^{b/}	2020 ^{b/}	2018 ^{b/}	2019 ^{b/}	2020 ^{b/}
World	3.6	3.5	3.6	3.0	2.9	2.8	3.7	3.5	3.6	3.1	3.0	2.9	3.7	3.6	3.7	3.1	3.0	3.0
Advanced economies				2.2	2.0	1.6	2.3	2.0	1.7							2.2	2.1	1.9
Euro zone				1.9	1.6	1.5	1.8	1.6	1.7							2.0	1.9	1.9
Emerging economies				4.2	4.2	4.5	4.6	4.5	4.9							4.4	4.3	4.6
Latin America and the Caribbean				0.6	1.7	2.4	1.1	2.0	2.5							1.0	1.7	2.3

a/ Purchasing power parity

b/ Estimated

Sources: World Bank, IMF, and UN.

Although it has declined, consumer confidence in the advanced economies remains above its long-term levels (Graph 1.1). Furthermore, unemployment is still below its historic levels², even though this has not resulted in a significant increase in the growth rate of wages (Graph 1.2, panel A). In this context, inflation has been contained in recent months with a slight increase in the United States (Graph 1.2, panel B).

1 According to Table 1.1 in the July 2018 Report of the Board of Directors to the Congress of the Republic, the growth forecasts for 2018 at market prices were 3.1%, 3.4%, and 3.2% according to the World Bank, the IMF, and the UN respectively.

2 In the United States, the current unemployment rate is 3.8% compared to 9.6% in 2010. In the European Union, the unemployment rate is at 6.9% compared to 10.8% in 2013.

The second half of 2018 was also characterized by a slowdown in international trade³. This occurred at a faster-than-expected rate in the advanced economies partly due to a decrease in industrial and commercial activity while in emerging economies the slowdown reflected a smaller demand from abroad. The downturn in industrial and commercial activity in the advanced economies is reflected in the most recent figures from the manufacturing production index (Graph 1.3). Even though the index continues to point to an expansion, this will probably be lower than what was seen in the first half of the year for the United States, the euro zone, and the emerging economies. In this scenario of more moderate commercial activity, there were also commercial tensions which affected the volume of international trade at the end of 2018.⁴

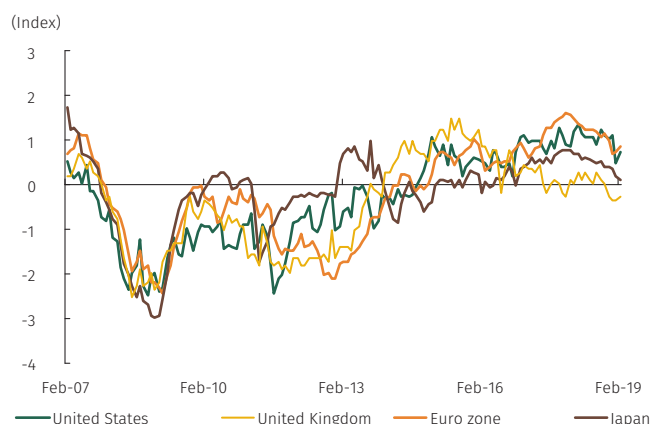
The downward revisions of growth expectations for 2018 were accompanied by high volatility in the international financial markets.⁵ The commercial tension between the United States and China together with the restrictions put on fiscal and monetary stimulus in the advanced economies exacerbated the concerns about the duration of the global expansion and, along with that, affected the risk perception of the international investors. The cost of financing in the advanced economies rose throughout most

3 Based on figures from the World Trade Organization (WTO), the global volume of trade in goods for 2018 stood at 3.9% compared to the estimate of 4.4% made in April 2018. Likewise, the forecast for this indicator for 2019 was revised downwards as it went from 4.0% to 3.7% in the most recent report made by this organization.

4 Since the beginning of 2018, new tariff rates have been introduced which affect close to 12% of the imported US goods, 6.5% of the goods imported by China, and close to 2.5% of the global trade in goods.

5 The most recent figures on the volatility index of the market for put options (VIX), which makes it possible to measure the expectations of market volatility, indicate that there is a higher risk perception among investors. The average for this indicator during 2018 and up to this point in 2019 is 16.85 while the index average for 2017 was 11.09. Higher values indicate greater expectations of volatility in the markets. Some interpret this indicator as a measurement of investor risk aversion.

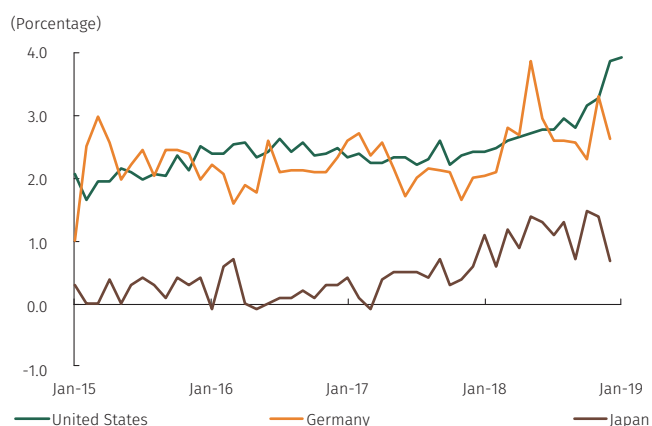
Graph 1.1
Index of Consumer Confidence in Advanced Economies^{a/}



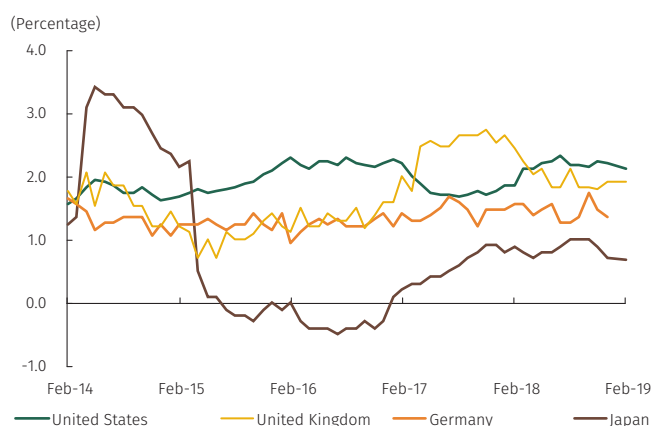
a/ Standardized series with an average equal to zero since the year 2000.
Source: Bloomberg.

Graph 1.2
Change in Inflation and Salaries in Advanced Economies

A. Annual Growth of Wages in Advanced Economies^{a/}



B. Core inflation in Advanced Economies



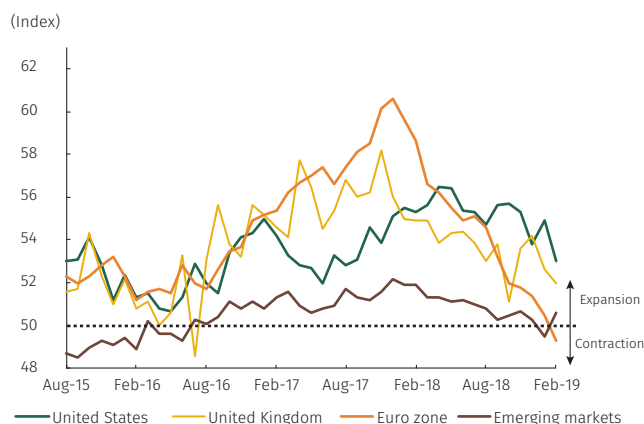
a/ For the United States, remuneration per hour in non-agricultural sectors; for Germany, remuneration per hour in all sectors of the economy; for Japan, average monthly salary in non-agricultural sectors.
Source: Bank for International Settlements

of 2018, while the levels of inflation approached the central banks' target and, thus, made a less expansionary monetary policy possible.

The prices for crude oil, in turn, have shown high volatility since August 2018 mainly due to supply factors. The United States' sanctions on crude oil exports from Iran and the continuing decline in production in Venezuela have contributed to raising the price of Brent crude oil, which reached levels of USD 86 per barrel at the beginning of October. However, prices fell quickly in November after the United States announced the temporary suspension of the Iran trade waivers for eight countries (including China and India). The subsequent decline in the price of oil reflected the fast growth in crude oil production on the part of the United States as well as an increase in supply on the part of the Organization of Petroleum Exporting Countries (OPEC) and Russia (Graph 1.4).

Moreover, during the second half of 2018, the international financial conditions were more restrictive with respect to what was seen at the end of 2017 (Graph 1.5) because of the return to a normal monetary policy by some central banks

Graph 1.3
Manufacturing Indices
(PMI: purchasing managers' index)



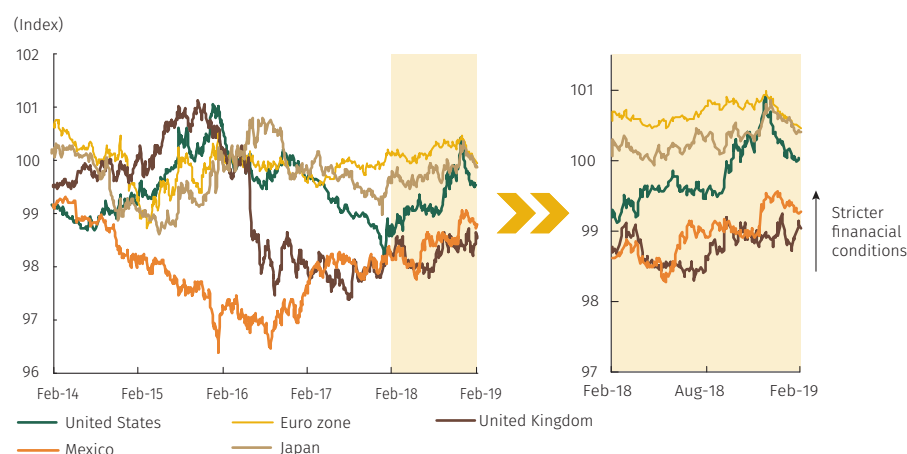
Source: Bloomberg.

Graph 1.4
International Price of Petroleum (Brent and WTI)



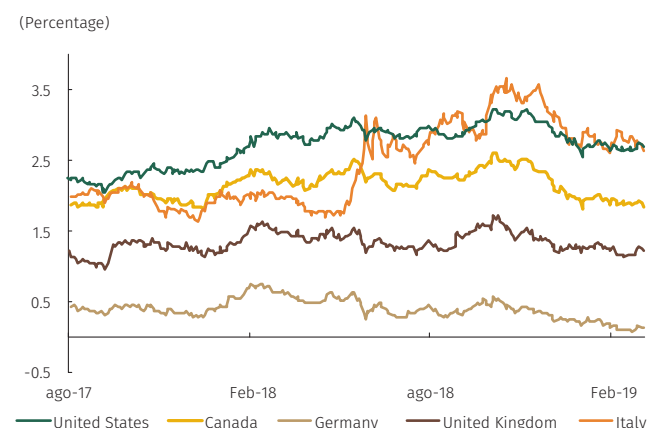
Source: US Energy Information Administration (EIA).

Graph 1.5
International Financial Conditions^{a/}



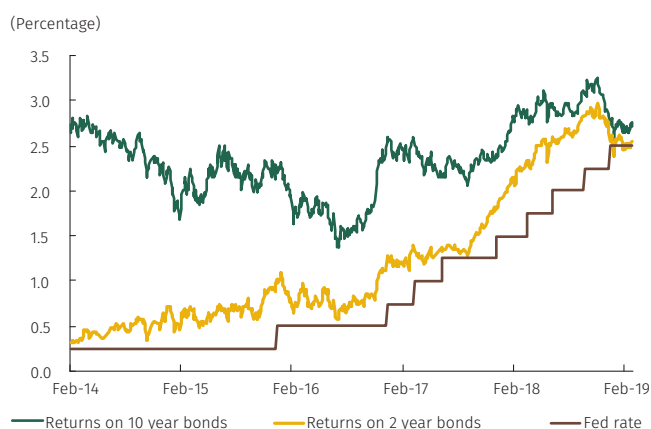
a/ Index of Goldman Sachs financial conditions. Higher values indicate more stringent financial conditions. The index includes daily data on short-term rates, yields on sovereign bonds, corporate spreads, stock prices, and exchange rates.
Source: Bloomberg.

Graph 1.6
Returns on 10-year Sovereign Bonds for Advanced



Source: Bloomberg.

Graph 1.7
Return on 2- and 10-year Sovereign Bonds in the United States
and the Monetary Policy Rate



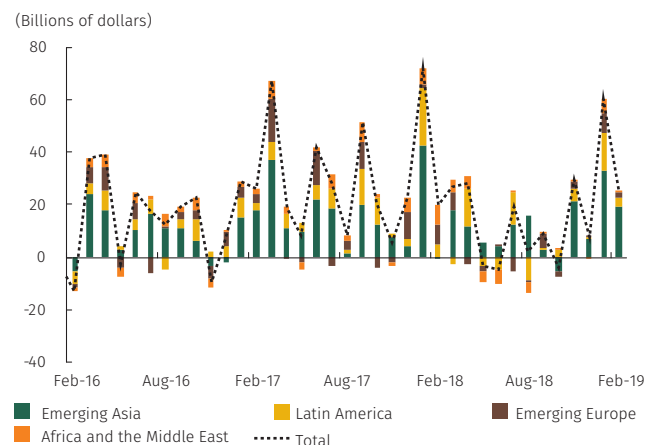
Source: Federal Reserve Bank of St. Louis.

in advanced economies.⁶ The expectations regarding tighter financial conditions contributed to increasing the sovereign yields in 2018. In the United States, the returns on long-term Treasury bonds ended the year at levels of 2.7% after considerable fluctuations. This is 30 basis points above the levels seen at the beginning of 2018 (Graph 1.6). The concerns of investors about the moderate outlook for growth, their search for safer assets, and the expectations of a slower-than-expected monetary policy normalization process on the part of the Fed may explain, in part, the flattening of the yield curve in that country. In fact, the difference between the yields of 10- and 2-year bonds dropped around 10 bp as of mid-December (Graph 1.7).⁷

Despite the tightening of financial conditions at the end of 2018, there was no evidence of a significant reduction in international bank lending in the global arena. This suggests that global liquidity has remained at high levels. However, when considering the changes in the liquidity indicators focused on emerging economies, a reduction in 2018 is evident and this suggests that these countries have less comfortable liquidity conditions.⁸

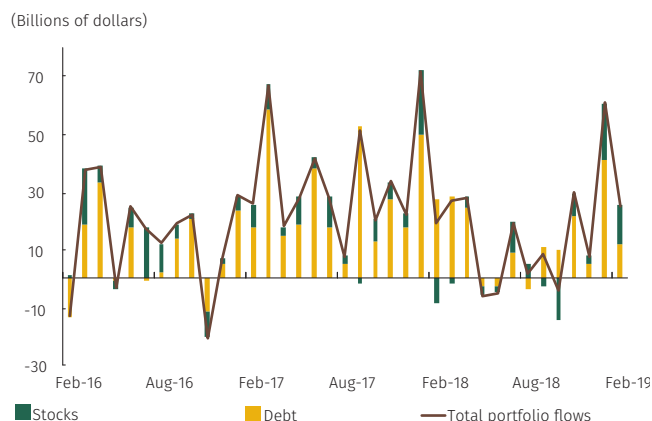
- 6 In the United States, the Fed raised the target range for the interest rate to a range of 2.25%-2.50% in their meeting last December. In the euro area, the ECB completed its program of net purchases of assets in December 2018. However, in March 2019 the ECB announced that they will not raise their interest rates at least until the end of this year and that between September 2019 and March 2021 they will carry out a new series of long-term financing operations for banks in the region.
- 7 At the end of December 2018, the yield from the short-term US treasury bonds was 2.6% while it was 2.8% for the long term ones.
- 8 One way to evaluate global liquidity is through the performance of transnational bank credits. The logic behind this measurement, which is carried out by the Bank for International Settlements (BIS), is that greater international liquidity should be reflected in the amount of transnational bank credit. According to the most recent data from the BIS international banking statistics, the annual rate of growth for these loans as of September 2018 was 1.6%, which is slightly higher than the average seen since the beginning of 2017 (1.2%). Nevertheless, when only the loans to emerging economies are analyzed, they had expanded at a rate of 2.5% yearly as of September 2018 which is much lower than the average since 2017 (7.6%).

Graph 1.8
Portfolio flows to Emerging Markets by Region^{a/}



a/ Estimates as of November 2018
Source: Institute of International Finance.

Graph 1.9
Portfolio flows to Emerging Markets by Type of Investment



Source: Institute of International Finance.

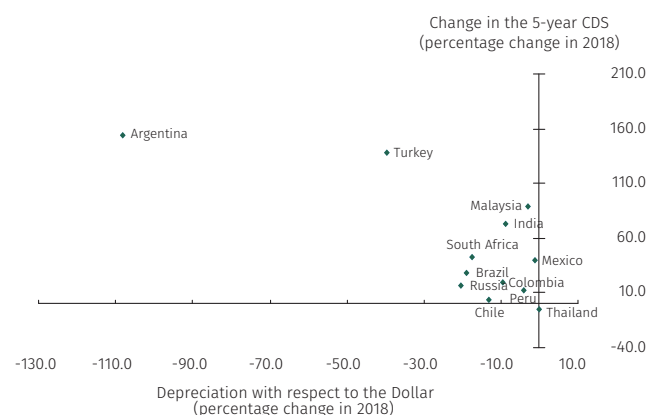
The effects of these movements in the financial markets in late 2018 were not uniform for emerging economies. Based on the most recent World Bank Report on Economic Prospects, those countries with current-account deficits funded by volatile capital flows as well as countries with a high proportion of short-term foreign debt were the most affected by the more restrictive international financial conditions. A high domestic debt, inflation rates that are outside of the target, and idiosyncratic factors such as political uncertainty also contributed to the increased exposure. The economies of this group, which have more liquid currencies and more developed financial markets, were particularly affected by changes in the climate of confidence in the markets and contagion effects. As a consequence, some emerging economies experienced a decline in their capital inflows during the second half of 2018 (Graph 1.8).⁹ This was seen in both debt instruments and stocks (Graph 1.9).¹⁰ Likewise, some central banks in advanced and emerging countries anticipated a greater tightening of financial conditions through increases in monetary policy interest rates. This led to a more restrictive domestic indebtedness, a pro-cyclical monetary policy, and in some cases, to a slow growth in demand and credit.¹¹ The depreciation of local currency and the higher perception of sovereign risk were more pronounced in some countries. This suggests that international investors have been differentiating between emerging economies to a greater extent and giving more

- 9 During the second half of 2018, the capital inflows to emerging countries averaged USD 9.2 billion (b) per month while during the first half of this same year, the average would have been USD 23.3 b per month.
- 10 Based on information from the IIF, USD 167 b in cumulative inflows were reported during 2018 and represented a fall of 43.2% compared to 2017. In the case of stocks, there were cumulative inflows of USD 28 b which showed a drop of 62.2%.
- 11 In the last two months, these rises in interest rates were seen in the central banks of Chile, Indonesia, Israel, South Korea, Mexico, Philippines, Russia, Saudi Arabia, Sweden, South Africa, and Thailand since they anticipated a tightening in financial conditions and, in some cases, in order to counteract inflationary pressure.

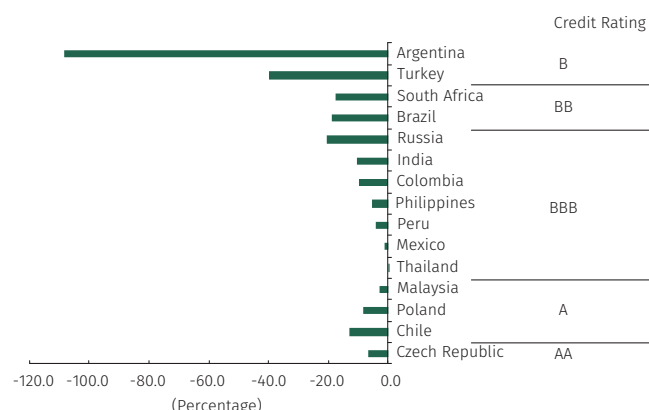
importance to factors that are specific to each country when they invest (Graph 1.10).¹²

Graph 1.10
Performance of the CDS and Local Currencies in 2018

A. Change in the 5-year CDS and depreciation for emerging economies



B. Local currency compared to the dollar in 2018



Source: Bloomberg.

A process of normalizing monetary policy on the part of the central banks in advanced economies that is sufficiently predictable and orderly as well as the consolidation of better fundamentals and formation of various cushions will probably contribute to dealing with more adverse financial conditions. In Colombia, the reserve accumulation programs and the orderly monetary policy helped the country continue to receive capital inflows in spite of the more restrictive international financial conditions at the end of 2018. Furthermore, some of the prices of local financial assets such as public debt securities have lost sensitivity to international conditions. To illustrate this point and using 2013 as its starting point, the BIS carried out a test with the information to compare the impact of changes in the long-term interest rates in the United States on a group of emerging economies. When the test was duplicated and updated with data from Colombia, the sensitivity of Colombian bonds to the movements of the long-term rates in the United States has been found to

¹² An analysis of the breakdown of the portfolio flows to different emerging countries by main components which was done by researchers at *Banco de la República*, has confirmed the hypothesis that investors are differentiating between emerging economies. It has been found that, since 2016, the first component explains 64.0% of the variance in the capital flows which suggests the existence of an important common factor that justifies the trend of the capital flows to emerging economies. In contrast, when this analysis is done for 2018, the explanatory power of the first component drops to 51.6% which implies that there was an increase in the importance of the idiosyncratic factors and a greater differentiation between countries on the part of investors.

be declining over the past year and is currently below the average estimated sensitivity of a broad group of emerging economies.¹³

In short, the presence of more restrictive financial conditions, the weakening of commercial activity, and the intensifying trade tensions during 2018 indicated new challenges for global growth in a context in which globalization, the deepening of trade ties and the formation of international value chains are increasingly affecting the economic growth of emerging countries.¹⁴ Notwithstanding the foregoing, a greater differentiation on the part of investors has been seen since 2018. This will probably be resulting in a differentiation in capital flows going to emerging economies.

A slight slowdown in real overall activity is estimated for 2019.

1.2 Recent developments and outlook for 2019

Estimates by the World Bank, the IMF and the UN for 2019¹⁵ are lower than what was projected in October of last year. This would indicate lower expectations for global economic growth (Table 1.1).¹⁶ The Organization for Economic Cooperation and Development (OECD) forecasts growth rates of 3.3% for 2019 and 3.4% for 2020, which were also lower than previous projections and a result of the increased sluggishness of global trade and the downward revisions in the growth of the majority of the G20 economies. However, growth projections differ for different groups of countries. While a slowdown in growth is anticipated for the group of advanced economies in 2019 and 2020, a period of increased growth is expected in the emerging

13 In an article prepared for the BIS governors' meeting in June 2018 entitled "Recent Developments in Global Economy," the BIS included a stress test of the long-term interest rates of 15 emerging economies in the event of changes in the yields of bonds issued by advanced economies. When the estimates for this test are duplicated for Colombia in the 2013-2019 period, researchers at the Bank found that the level of transmission of foreign rates to local ones is lower than the one for the group of countries analyzed by the BIS. They found that, in the event of a 100 bp change in the long-term US interest rate, a rise of 43 bp in the average long-term rates in emerging countries and of 25 bp in the average long-term rates in Colombia would ensue. Using only information from the last twelve months, the estimated average values correspond to 24 bp for the sample of the emerging economies and 10 bp for Colombia.

14 According to a note prepared by the BIS in December 2018 titled "How Has Globalization Affected Emerging Market Economies" and in which the globalization trends in emerging countries with respect to trade, the emergence of international value chains, and foreign direct investment are analyzed, the greater degree of global trade interconnection in emerging countries has been accompanied by a progressive rise in the GDP and lower macroeconomic volatility in these economies. At the same time, the study points out that the tight integration of the emerging economies into international trade makes them more vulnerable to external shocks.

15 According to Table 1.1 in the July 2018 Report of the Board of Directors to the Congress of the Republic, the growth forecasts for 2018 at market prices were 3.1%, 3.4%, and 3.2% according to the World Bank, the IMF, and the UN respectively.

16 The projected figures on global growth at market prices for 2019 were 3.0%, 3.3%, and 3.2% based on the calculations of the World Bank, the IMF, and the UN respectively.

In the first few months of 2019, a decrease in the perception of risk in the international financial markets has been seen.

economies, including Latin America and the Caribbean, over the next two years.

In addition, a decline in the perception of risk in the international financial markets was seen at the beginning of 2019. Announcements by the Federal Reserve up to this point in 2019 regarding a more cautious and gradual normalization process of monetary policy indicated to the markets that it was possible that there would be no more increases in the interest rate for the remainder of the year.¹⁷ Similarly, there have been announcements about a slower decrease in the balance than was initially expected. This suggests that the financial conditions for 2019 could possibly be more lax than was anticipated at the end of 2018 (Graph 1.5). The above, added to the optimism regarding a possible solution to the trade friction between the United States and China,¹⁸ could generate conditions that would be conducive to a continued recovery of capital flows to emerging economies.

The rebound and recovery of asset prices have been substantial. At the beginning of February, the drops that occurred in the prices of stocks and corporate debt at the end of 2018 had already recovered, and the emerging markets have been receiving capital inflows for both equity instruments and debt (Graphs 1.8 and 1.9).¹⁹ The bond rates for the majority of the countries have remained relatively stable in reaction to the change in the international economic and monetary outlook. This indicates that the tightening of international financial conditions at the end of 2018 has lost strength so far in 2019.

Over the course of the year, there have been capital inflows to emerging economies.

In this context, growth in the United States, bolstered primarily by fiscal stimulus and an increase in domestic demand, has remained sound. Growth in this country for 2018 was 2.9%, which was 0.2 pp higher with respect to the previous forecasts by the IMF. The labor market remains sound and the unemployment rate of 3.8% is at a historically low level. A slight downturn in the growth of this country is expected for 2019 in the wake of the monetary adjustments that

17 However, the results of the labor market reports in the United States and the performance of inflation will be determining factors in the decisions made by the Fed for the remainder of the year. According to the IMF, the interest rate is expected to rise more gradually during 2019 and 2020.

18 The United States announced the postponement of an increase in tariffs on Chinese imports which had been planned for March 1st this year.

19 According to the most recent reports from the IIF, in comparison to December 2018, the portfolio flows into emerging economies rose 675% and 227% in January and February 2019 respectively. That increase was fueled mainly by investments in debt instruments in the first case and in stocks, in the second.

Growth in Latin America and the Caribbean is expected to surge in 2019.

the Federal Reserve has already made and the fading effects of the fiscal stimuli.²⁰

In contrast, economic activity in the euro zone was weaker than expected due to a stagnation in their exports. Growth in this region slowed down in 2018 with a growth of 1.9% (0.2 pp below previous projections). Specifically, the growth rate of exports has weakened, thus reflecting prior appreciations of the euro and a slowdown in demand abroad. Growth in the euro zone for 2019 is expected to continue to decline and reach 1.6% in 2019 and an average of 1.4% between 2020 and 2021. The ECB has shown signs of a more relaxed monetary policy during 2019.

With regards to the Chinese economy, in spite of an adjustment that has been orderly up to this point, its level of leverage remains high. Based on information from the BIS, loans going to the non-financial private sector would have come to 205.5% of the GDP in June 2018. Furthermore, the credit-to-GDP gap,²¹ which is a ratio of the level of credit to GDP and its long-term trend, reached a figure of 12.3 as a percentage of the GDP in June 2018. This represents a level that is above the historical average.²² Although this indicator has declined from values that were higher than 20% of the GDP in mid-2016, a lot of attention is being given to the speed of its decline due as much to the possibility that there could be a more drastic fall than expected as to the high sensitivity of the private sector financial burden to changes in interest rates in that country.

Even though the growth forecasts for emerging economies are more positive in comparison to the advanced economies, the economic expansion in some emerging countries has also slowed down, particularly in those with high macroeconomic imbalances. Economic activity in the emerging countries will largely depend on how they deal with international trade and the financial conditions in the global markets this year.²³

Despite the existence of some short-term corrections, growth in Latin America and the Caribbean is expected to rise and to reach 2.3% in 2019 in an environment of historically low levels of the perception

20 Based on projections by the World Bank, growth in the United States will be 2.5% for 2019 and 1.7%, on average, for 2020 and 2021. These figure are consistent with this country's growth potential.

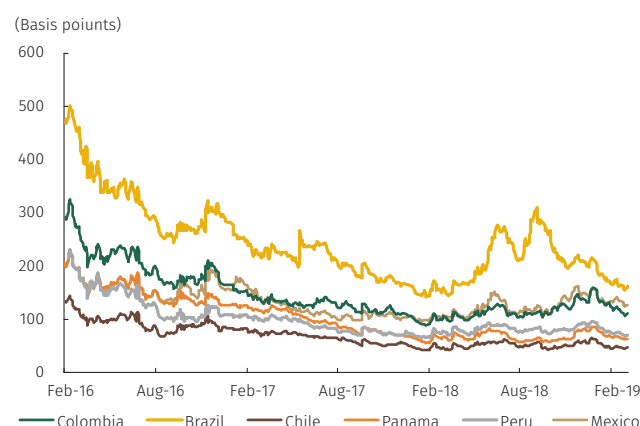
21 This corresponds to the difference between the level of credit to GDP minus its long-term trend which gives the excessive accumulation of credit.

22 As a reference, the simple average of the credit-to-GDP gap for China since 1996 has been 7.5%.

23 Growth in this group of countries is expected to remain at 4.2% in 2019 which is 0.5 pp below previous projections. This downward revision is due, in part, to the weakening of growth in Argentina and Brazil. Similarly, the regional average is pulled downward by the economic situation in Venezuela.

of sovereign risk (Graph 1.11). In this region, the growth dynamics are mixed. According to the forecasts by the Economic Commission for Latin America and the Caribbean (ECLAC), the economies of South America, which have specialized in the production of raw materials, especially petroleum, minerals, and food, probably grew at a rate of 0.7% in 2018 and could reach a rate of 1.6% in 2019. A growth of 2.4%, in turn, is estimated for the economies of Central America and Mexico for 2018 and of 2.5% for 2019.²⁴ At the same time, an average growth of 1.9% is anticipated for the Caribbean in 2018 and 2.1% for 2019.²⁵ In spite of the fact that higher growth is expected this year compared to 2018, the credit ratings of some Central American countries have declined due to several factors including the intensification of fiscal problems.²⁶

Graph 1.11
Five-year Credit Default Swaps (CDS) for Some Latin American Countries



Source: Bloomberg.

Moreover, with regards to the economies of Latin America, 2019 will be marked by political uncertainty in some countries such as Argentina, where there will be presidential elections this year, and Brazil and Mexico, where there are expectations with respect to the policies that their new governments will adopt. A larger economic contraction and a greater surge in inflation is expected in Venezuela as a result of the

24 According to the IMF, economic activity in Central America is expected to rebound between 2019 and 2020 but at a slower pace than was previously predicted. The main downward revisions correspond to Costa Rica, where the fiscal reform is expected to reduce growth in the short term, and Nicaragua, given the current political uncertainty.

25 The majority of the growth in the Caribbean will be spurred by a higher rate of tourist activity and increased production of raw materials in some of the countries that export these products.

26 In the case of Nicaragua, the possibility of further weakening of the country's credit profile and of possible liquidity pressures were the main causes behind the shift in Moody's outlook from stable to negative. Furthermore, Standard & Poor's lowered their rating of the long-term sovereign debt from B to B- due to the country's prolonged fiscal and financial deterioration. The Fitch Ratings agency also lowered the sovereign rating in foreign currency from B to B-. In Costa Rica delays in the implementation of fiscal reforms added to high debt burden indicators, a high level of dollarization of the financial system, and limited foreign, fiscal, and monetary flexibility caused the rating agency, Standard & Poor's, to lower their credit rating from BB- to B+ towards the end of 2018. Fitch Ratings lowered the credit rating from BB- to B+ and Moody's changed the outlook from stable to negative. Standard and Poor's and Moody's ratings for Honduras remained at BB- and B1 with a stable outlook in both cases. In Salvador, due to their Legislative Assembly's approval of the issuance of debt to pay the eurobond debt that will mature in December 2019, the rating agency, Standard & Poor's, raised that country's rating from CCC+ to B. Moody's also raised the country's rating from CAA1 to B3 at the beginning of 2018 due to the decline in the government's liquidity risks. Finally, in Panama, the country's high and persistent growth and its financial stability caused the rating agency, Standard & Poor's, to raise the outlook from stable to positive and reaffirm its rating of BBB in mid-2018. Also, at the beginning of 2018, Fitch Ratings ratified the BBB rating with a stable outlook.

current economic and political situation which, in turn, has exacerbated that country's emigration crisis.²⁷

Expectations regarding the financial conditions and international trade will be decisive for the emerging economies during 2019. For one thing, the events of the last few months suggest international financial conditions that are less restrictive than were expected at the end of 2018. This has lowered the volatility in the financial markets and reactivated capital flows to emerging economies. Moreover, the normalizing of monetary policy in the advanced countries has been quite orderly and this could bring about less pressure that could lead to volatility in the near future. In addition, there is evidence that investors are differentiating more with respect to how to allocate their assets and this has affected the capital flows to different countries. In this context, economies with strong economic fundamentals and sound economic policy frameworks should continue to show more favorable performance and better capital inflows.

Finally, based on World Bank projections, an average price for oil of USD 67 per barrel is expected for 2019 and 2020, which is USD 2 below what was estimated in June; however, information from the futures market suggests that the Brent crude oil price could be lower than this forecast.²⁸ In fact, the uncertainty with respect to the price of crude oil is high due to the slowdown in the growth of the major emerging economies, the production decisions made by OPEC,²⁹ the uncertainty about the real impact of the sanctions imposed on Iran as well as the outlook for crude oil production in Venezuela.

Despite the high uncertainty in the crude oil market, the average price during 2019 is expected to be lower than in 2018.

27 The International Organization for Migration (IOM) estimates that the number of refugees and migrants from Venezuela have reached 3 million. Moreover, based on the report entitled Migration from Venezuela to Colombia published by the World Bank, 1,235,593 people are estimated to have entered Colombia from Venezuela with the intention of staying. This includes returning Colombians and regular and irregular migrants as well as a significant number of migrants who are in transit to other countries. In the last five years, the migration from Venezuela to Colombia has been concentrated in mainly border areas (Norte de Santander, Arauca, and La Guajira), the Atlantic Coast and Bogota. Based on World Bank estimates, the cost of providing the migrants with basic public utilities that are similar to what the local population has will represent an annual 0.2%-0.4% of the GDP in the short term.

28 As of February 5, the futures contracts for Brent crude oil with delivery in July 2019 were trading at USD 62.62 per barrel. Those with a delivery date in December 2019 were trading at USD 62.25 per barrel.

29 The countries which are members of OPEC have announced cuts in the production of 1.2 million barrels per day for six months starting in January 2019. However, little has been reported about the distribution of these cuts and whether or not they will be enough to reduce the oversupply of oil.

02

The Colombian Economy: Results in 2018 and Outlook for 2019

The performance of the Colombian economy improved in 2018, in line with expectations and as a result of a recovery in investment and positive results in consumption. Due to the fact that the performance of domestic demand was not accompanied by a similar increase in exports, the deficit in the current account increased.

GDP is expected to grow in 2019 at a higher rate than the one registered the previous year as a result of the normalization of domestic demand.

Inflation reverted to the target in 2018 after several years of showing deviations from it due to various supply shocks. Major changes in its trend are not expected in 2019; rather, it should hover around 3.0%.

2.1 Economic Activity

As expected, the performance of the Colombian economy improved in 2018. This result reflected the transition to a new growth trajectory after the macroeconomic adjustment that took place between 2016 and 2017. This occurred as a response to the sharp reduction in the price of oil and in the national income since the end of 2014. The shock was also characterized by higher risk premia on the international markets. During the subsequent adjustment process, an increase, in turn, was seen in the exchange rate and contractions in the growth of private consumption and

investment. This has resulted in output levels that are below their potential and the gradual closing of the current account deficit.

The consolidation of a more favorable macroeconomic environment in 2018 was the result of a recovery in investment and of positive results in both public and private consumption. Nevertheless, due to the fact that the performance of domestic demand was not accompanied by a similar increase in exports, the current account deficit increased. GDP is expected to grow in 2019 at a higher rate than the one registered the previous year as a result of the normalization of domestic demand, the stimulus for investment included in the Financing Act, and the access to foreign financing. However, the prospects of lower growth for the country's trading partners and reductions in the prices of raw materials compared to what had been estimated previously limit the expected economic performance.

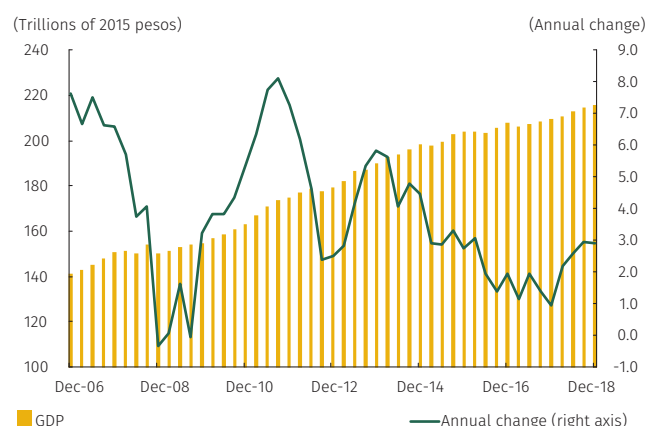
2.1.1 Change in Economic Activity in 2018

According to the National Bureau of Statistics (DANE in Spanish) annual economic growth in 2018 amounted to 2.7% above what was registered a year ago (1.4%)³⁰ with an expansion rate that surged in the second half of the year (Graph 2.1).

A large part of the better performance was due to greater domestic demand. This component of the GDP contributed positively to growth in each of the quarters with an upswing in both consumption and investment. In the case of consumption, the public component maintained significant expansion rates due to positive shocks to spending arising from an increased implementation of resources by regional and local governments (along with other sources). Thus, public consumption showed an upswing for the entire year as it grew 5.9% in 2018 compared to 3.8% from the year before (Table 2.1).

Likewise, private consumption surged over the course of the year, but it was spending on goods (rather than on services) that contributed the most to the recovery compared to 2017. The largest upswings during the year were seen in the aggregate of the consumption of durable goods (it went from growing -4.3% in 2017 to 6.3% in 2018) and semi-durable goods (which went from 0.8% to 4.4% respectively). The consumption of services, in turn, showed a performance that was similar to that of the previous year.

Graph 2.1
Gross Domestic Product
(seasonally adjusted and corrected for calendar effects)



30 Based on the figures published by DANE on February 28, 2019, growth in 2017 was revised from 1.8% to 1.4%.

Table 2.1
Real Growth of the GDP by Type of Expenditure (corrected by seasonal adjustment and calendar effects, base 2015)

	2017	2018				2018
	Full year	Q1	Q2	Q3	Q4	Full year
Final spending on consumption	2.4	3.9	4.4	3.8	3.6	3.9
Final spending on household consumption	2.1	3.4	3.9	3.6	3.3	3.5
Non-durable Goods	3.1	4.4	5.2	3.9	3.6	4.2
Semi-durable Goods	0.8	3.0	5.1	5.3	4.4	4.4
Durable Goods	-4.3	6.4	8.1	5.3	5.6	6.3
Services	2.7	2.8	2.6	2.4	2.5	2.6
Final spending on general government consumption	3.8	6.0	5.9	6.2	5.4	5.9
Gross Capital Formation	-3.2	-2.3	-1.8	8.7	9.9	3.5
Gross Fixed Capital Formation	1.9	-0.9	-2.8	2.9	5.4	1.1
Housing	-1.9	-4.8	-1.0	0.9	5.8	0.0
Other buildings and structures	4.6	-2.2	-2.6	1.5	9.5	1.5
Machinery and Equipment	1.4	8.8	-0.8	0.2	-3.8	1.0
Cultivated biological resources	0.3	-2.7	2.0	7.6	-2.6	0.9
Intellectual property products	2.5	4.0	5.3	4.7	4.1	4.5
Domestic demand	1.2	3.5	3.3	4.0	4.5	3.8
Exports	2.5	-0.2	0.4	1.6	3.1	1.2
Imports	1.2	0.3	8.3	7.9	15.6	8.0
GDP	1.4	2.2	2.6	2.9	2.9	2.7

Source: DANE, calculations by Banco de la República

In general, the better performance of private consumption occurred in a context in which both inflation and inflation expectations were controlled, their trend had turned downward as the year advanced, and they closed barely above the 3.0% target set by the Board of Directors of *Banco de la República*. The economy also enjoyed a relatively ample supply of credit with low real interest rates for households. Furthermore, a gradual recovery in household confidence was seen despite the negative records in November and December. Those seemed to have been temporary in nature and closed the year at levels that were, on average, higher than the ones in 2017.

The dynamic gross capital formation (GCF) also contributed to the rise in the GDP. Nevertheless, note that part of this better performance was due to what happened with the build-up of inventory. In fact, the gross fixed capital formation (GFCF), an item that does not incorporate changes in existing investment, grew 1.1% in 2018.

Analyzing the performance of the items it is made up in greater detail, it is clear that the aggregate of investment in construction (both of housing and other non-residential buildings and of public works) showed poor performance up to the third quarter, but rebounded during the last

quarter of 2018. With regard to the GFCF in machinery and equipment, this type of investment rose at a weak pace as it grew 1.0% in 2018.

The foreign trade accounts (in real terms) registered positive growth rates for the 2018 aggregate, although the growth in the sector of imports was greater. During the year, exports in real terms presented a growth of 1.2% as a consequence of different supply shocks that limited the expansion of sales of raw materials abroad. The sales of manufactured products and other goods were limited by the sluggishness of foreign demand seen over the course of the year. With this, the trade deficit in constant 2018 pesos widened with respect to what was registered in 2017.

On the side of supply, the sectors that grew the most during 2018 were the branches of professional, scientific, and technical work (5.0%); and public administration and defense; education; and health (4.1%). In contrast, the sector of mining and quarrying presented a contraction (-0.8%) (Table 2.2).

Table 2.2
Real Annual Growth of the GDP by Branches of Economic Activity
(corrected by seasonal adjustment and calendar effects, base 2015)

	2017	2018				2018
	Full year	Q1	Q2	Q3	Q4	Full year
Agri-business, Forestry, Hunting, and Fishing	5.5	2.2	3.7	1.3	0.8	2.0
Mining and Quarrying	-5.7	-3.5	-3.2	2.7	1.0	-0.8
Manufacturing Industry	-1.8	0.1	2.5	2.8	2.6	2.0
Electricity, Gas, and Water	2.9	2.9	2.7	2.6	2.7	2.7
Construction	-2.0	-4.3	-5.2	5.3	5.6	0.3
Buildings	-5.2	0.1	-5.6	5.7	3.9	1.0
Public works	6.5	-3.7	-3.8	-2.9	7.8	-0.6
Specialized Construction Work	-4.0	-1.0	-5.7	2.1	1.0	-0.9
Commerce, Repairs, Transportation, & Accommodations	1.9	3.1	3.2	3.2	3.0	3.1
Information and Communications	-0.2	0.6	3.1	5.5	3.2	3.1
Financial and Insurance Business	5.4	4.7	3.8	1.6	2.3	3.1
Real estate	3.1	2.2	2.0	1.9	1.8	2.0
Professional, Scientific, and Technical Work	1.3	7.2	6.1	3.4	3.4	5.0
Public administration and Defense, Education, Health	3.5	5.2	4.2	3.5	3.7	4.1
Artistic, Entertainment, and Recreational Activities	2.2	0.7	1.6	0.9	2.5	1.4
Subtotal value added	1.4	2.4	2.1	2.9	2.5	2.5
Taxes minus subsidies	1.1	2.1	3.1	2.6	2.5	2.6
GDP	1.4	2.2	2.6	2.9	2.9	2.7

Source: DANE, calculations by Banco de la República

The sector of public administration and defense, education, and health, which carry significant weight within the GDP, showed the most growth among the branches of activity that is consistent with public spending. However, other items related to services presented slowdowns. In the case of the financial and insurance sector, this went from growing 5.4% in 2017 to 3.1% in 2018.

The agri-business sector expanded, but at a slower pace than in 2017 due to crop performance. The decline in coffee production, which, according to the *Federación Nacional de Cafeteros*, FNC, (National Federation of Coffee Growers) fell 4.5% due to unfavorable weather conditions, contributed substantially to the latter. In addition, there was a slowdown in the growth rate for the livestock sector in 2018.

The manufacturing industry as a whole showed a significant recovery as it grew 2.0% in 2018 compared to the -1.8% contraction seen in 2017. This recovery in the industry occurred in an environment of greater domestic demand as has been mentioned. Furthermore, the sector of trade, transportation, and lodging also showed a significant upswing as it grew 3.1% yearly during 2018.

The GDP for construction presented a growth of 0.3% in 2018 in comparison to the 2.0% drop registered the previous year. However, that result was the product of a significant recovery in the sector during the second half of the year when growth rates in excess of 5.0% were registered. With respect to public works, the setbacks in implementing the fourth generation (4G) highways that were caused by the delays in the financial closures of a number of projects contributed to the reversals seen in the first half of the year. However, this situation reversed itself in the last quarter, during which period a 7.8% advance was registered. Regarding buildings, there was a significant decline in the first half of the year, but also a notable reversal during the third and fourth quarters of the year.

Finally, the mining sector reported another contraction in 2018, although this one was on a smaller scale than the one seen a year ago. Within this sector, the sharp setback that occurred in coal production (-6.7%) which, according to the Colombian Mining Association, is related to climate factors and delays in the process of expansion, stands out. After having contracted 3.9% in 2017, the production of crude oil and natural gas partially offset the above as it grew 1.4%, a trend that the higher prices for crude oil seen over the course of the year contributed to.

2.1.2 Outlook for Economic Activity in 2019

The available information makes it possible to anticipate an upswing in the pace of economic growth in 2019 compared to what was seen in 2018. With an institutional framework for economic policy that will continue to be robust, GDP growth in 2019 will correlate with

The manufacturing industry showed a significant recovery as it grew 2.0% in 2018, compared to the -1.8% contraction in 2017.

The available information makes it possible to anticipate an upswing in the pace of economic growth in 2019 compared to 2018.

the country's potential long-term expansion. To be specific, the Colombian economy is expected to continue to enjoy access to external financing as a result of a slower pace in the normalization of the monetary policy stances of the advanced economies and a stronger domestic investment. At the same time, since the Financing Act has gone into effect, it should exert a positive effect on the economy. Thus, the growth forecast for 2019 of the technical staff at *Banco de la República* stands at 3.5%.

On the domestic front, a recovery in the investment in both public works and machinery and equipment is still expected, albeit at a somewhat higher rate than what had been considered earlier. In the first case, the majority of the impetus could come from a better performance in implementing the resources on the part of the regional and local governments. Even though the investment in construction of highways within the 4G framework will show annual increases, it will probably continue to face bottlenecks in the financial closures and in delays due to environmental, property, and social issues which could hinder the use of resources and their contribution to the expansion of economic activity in 2019.

In the case of investment in machinery and transportation equipment, a more dynamic economy in 2019 will probably be the result, mainly, of the tax benefits for investment in the types of goods that are included in the Financing Act. With regards to gross capital formation in housing, the sluggishness in the demand for middle- and high-income housing is expected to continue, and in the area of non-residential buildings, the excess supply is largely expected to persist.

With respect to the performance of public consumption, a growth that is lower than what was seen in 2018 is anticipated for 2019. In line with the national government forecasts, this implies compliance with the deficit levels allowed by the fiscal rule through an adjustment in spending on, mainly, Central National Government (CNG) functions.

Based on all of the above, the technical staff at *Banco de la República* anticipates a surge in domestic demand in 2019 fueled, above all, by greater gross capital formation. Total consumption will probably register a growth similar to what had been observed in 2018. The forecast for consumer behavior is likely to continue showing a moderate trend towards recovery just as was seen over the course of 2018.

Net exports will continue subtracting from growth during 2019. This projection takes into account the fact that signs of a downturn in the growth of demand from abroad have been seen in the last few months, and that this trend is expected to continue throughout the year. This could imply less demand for the country's exports of non-traditional goods and services.

An upswing in domestic demand fueled, above all, by more investment is anticipated.

In 2019, net exports will probably continue subtracting from growth.

Industrial production is expected to continue its recovery process in 2019, and there is likely to be an upturn in public works construction.

From the sector viewpoint, the estimates of the technical staff at *Banco de la República* suggest that the growth of the Colombian economy will probably continue to recover in 2019 primarily due to the performance of the manufacturing industry and the gradual upturn in public works construction.

As for industrial production, it is expected to continue its recovery process in 2019 given the impact that the accumulated depreciation of the exchange rate could have on the sector's competitiveness. On the other hand, crop and livestock production is expected to be similar to that of 2018. The *El Niño* phenomenon, which, according to the forecasts by international agencies, will probably be weak, could have a negligible effect on sector supply. The FNC projections envision a likely improvement in coffee production in 2019 (thanks to more favorable climatic conditions and high levels of flowering) especially in the second half of the year.

A production that is similar to that of 2018 is expected for mining GDP. For one thing, a moderate recovery is anticipated in coal production during 2019 due, in part, to a low basis for comparison in 2018 and in line with the expected exports of this product. However, a lower price for oil is also predicted and that could halt the expansion of crude oil production. Finally, forecasts made by the sector associations make it possible to anticipate positive outcomes in the production of other metals such as gold and nickel.

2.2 Labor Market³¹

During 2018, the labor market indicators showed stability, on average.

The labor market indicators showed stability, on average, during 2018, which is consistent with a moderate growth rate for the economy. Thus, there was positive growth during the first three quarters and a setback in the last. This was a surprise given the positive economic activity during this latter period. Thus, there were no major changes in the national unemployment rate (UR) until the third quarter due to similar trends in the rate of employment (ER) and the overall participation rate (OPR). However, it showed rises towards the end of the year when greater declines were registered in the ER than in the OPR. Although the employment levels, in turn, rose on average during 2018, they showed decreases in the fourth quarter in both the national total and the most pertinent thirteen metropolitan areas. Labor indicators are expected to have a positive reaction in 2019 given that the recovery process of economic activity will probably continue.

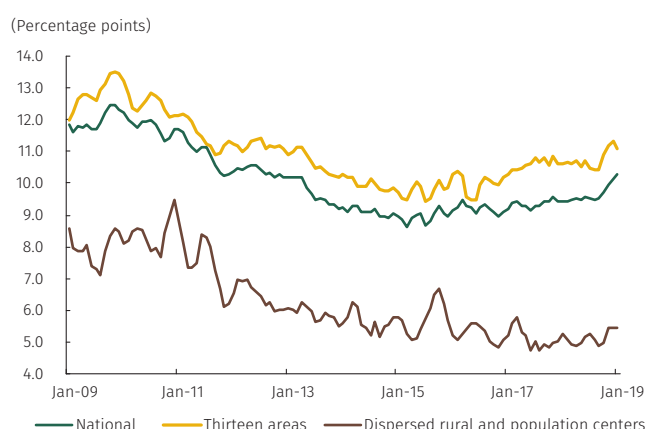
³¹ The labor market figures are showing a seasonal adjustment, i.e., their numbers are systematically higher or lower depending on the time of year. Therefore, this has to be corrected through statistical techniques in order to compare different months of the same year. Because of that, what is presented in this section is seasonally adjusted.

2.2.1 Unemployment

Based on DANE's General Integrated Household Survey (GEIH), the national UR rose on average in 2018. However, the trend varied throughout the year: up until the third quarter, the UR remained stable at levels similar to those at the end of 2017. This is in line with a recovery of economic growth, but one that is still below its potential. However, there were upswings in the national total in the fourth quarter. Even though the Colombian economy continued to recover during the last quarter of the year with an annual growth that was higher than what was registered during the same period in 2017, this positive outcome was not

reflected in the labor market figures at the end of the year. Indeed, the upturn in the UR is primarily explained by a marked fall in the demand for labor during the last quarter of the year.

Graph 2.2
Unemployment Rate
(seasonally adjusted quarterly moving average)



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

Going by geographical domains, the UR trend for the thirteen areas was similar to the rate of the national total. As of December 2018, the UR stood at 10.1% for the national total and 11.3% for the thirteen metropolitan areas. These registered percentages are higher than the ones for the third quarter of the year (9.5% and 10.4%) and the ones in December 2017 (9.4% and 10.6%). The UR in rural areas, in turn, fluctuated around 5.1%, a figure that is similar to the average rate for 2017 in this area, but ended the year at levels that were higher than the ones in

December of the previous year (5.4% compared to 5.0%) (Graph 2.2).

2.2.2 Labor Supply and Demand

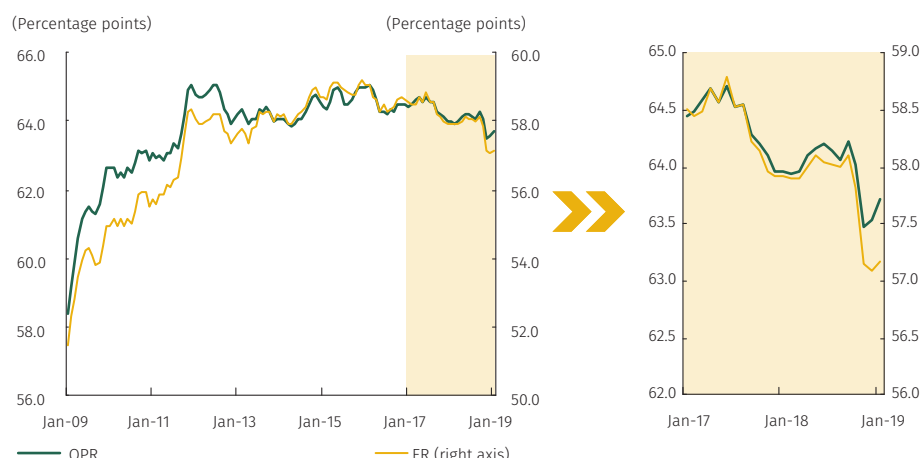
The trend of unemployment can be explained by the interaction between the labor supply, represented by the OPR, and the demand, expressed by the ER. In the national total, both the OPR and the ER showed stability until the third quarter of 2018 but declines in the last few months of the year. Thus, the increase in the national UR at the end of the year is a consequence of a reversal in the ER which was not offset by a drop in the OPR (Graph 2.3, panel A).

In the thirteen areas, in turn, the seasonally adjusted series for the OPR and ER showed rises in the first half of 2018 and declines during the last few months of the year. In the last few months of the year, the decrease in the ER in this geographical domain also surpassed the drop in the OPR due to which the UR presented an annual increase (Graph 2.3, panel B).

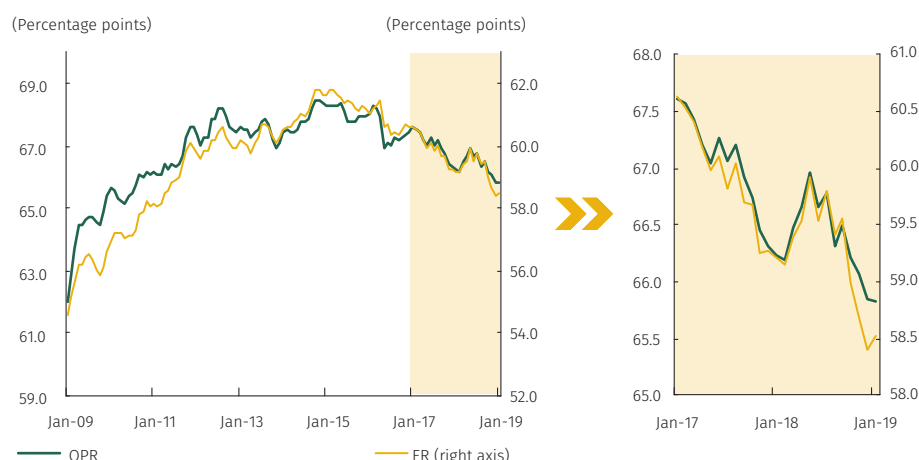
In spite of the positive results in economic growth, the urban supply and demand for work showed a deterioration in the last quarter. The

Graph 2.3
Overall Participation Rate (OPR) and Employment Rate (ER)
(seasonally adjusted)

A. National Total



B. Thirteen areas



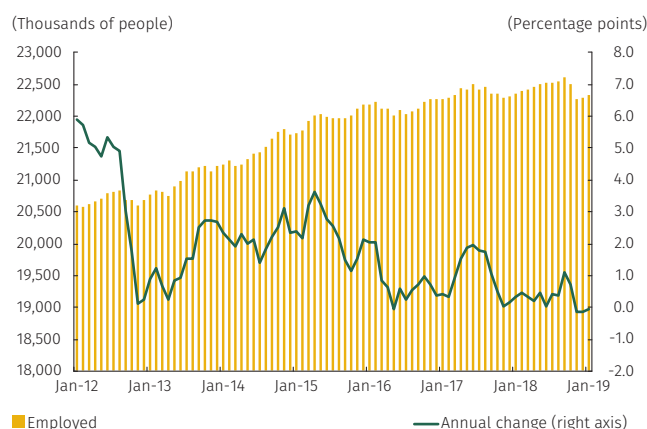
Source: DANE (GELH) and calculations by Banco de la República.

urban OPR and ER fell after having presented increases at the beginning of the year. In this fall, the rates for secondary members of the household (not the heads) among the less educated groups (11 or fewer years of schooling) and the younger people (25 or fewer years) were those with the greatest declines in the last few months of 2018.

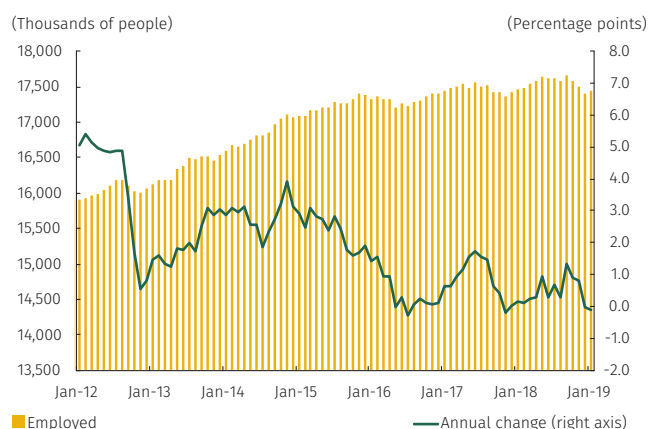
The poor performance of the ER in the last quarter was reflected in declines in the number of people employed in both the national and the urban areas (13 areas) since these decreases were in comparison to the levels during the third quarter of the year. Nevertheless, for the yearly average, employment presented positive, although close to zero, annual rates of growth (0.3% in both geographic areas) (Graph 2.4).

Graph 2.4
Number of People Employed
 (seasonally adjusted quarterly moving average and annual change)

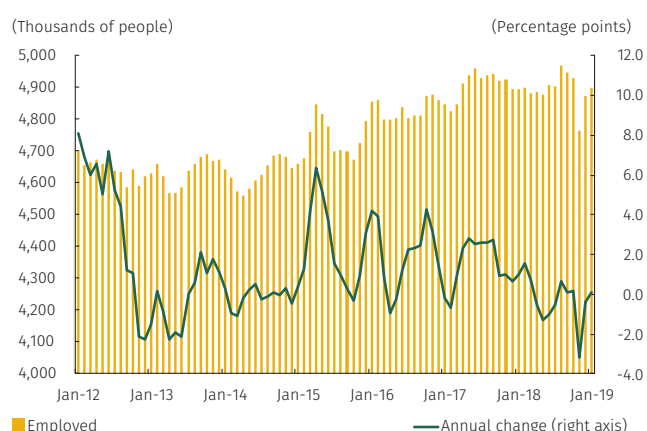
A. National Total



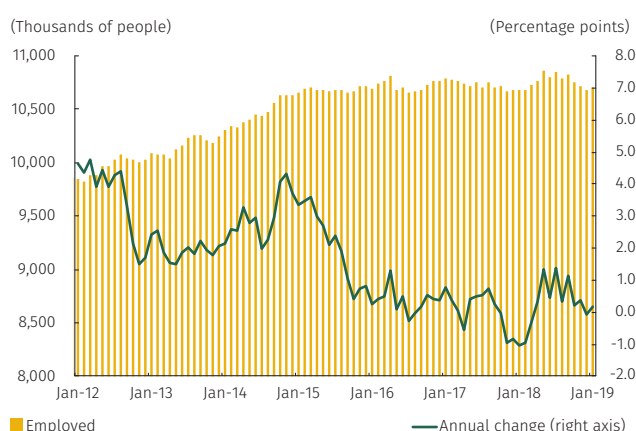
B. Urban Centers



C. Rural area



D. Thirteen Main Metropolitan Areas



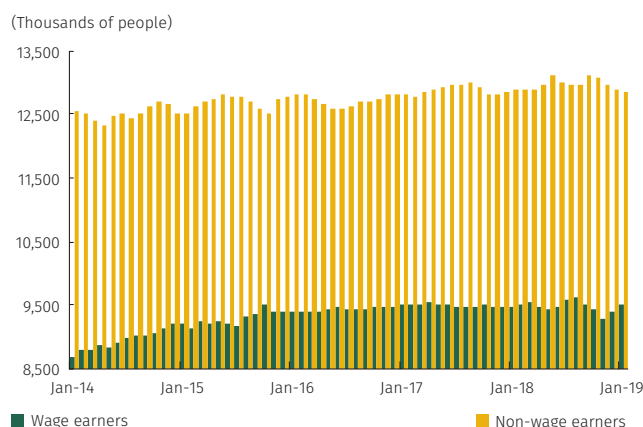
Source: DANE (GELH) and calculations by *Banco de la República*.

When broken down by branch of economic activity, it is clear that, on average, the creation of employment on the national level was driven mainly by the manufacturing industry and community, social, and personal services in 2018. The favorable performance of the former is explained by the companies with up to ten workers. The sub branch of State administration and application of the economic and social policy for the community accounts for the majority of the expansion of employment in community, social, and personal services, especially during the first half of the year. In contrast, the sectors that subtracted the most from the generation of employment this year were real estate, businesses and rentals, commerce, and hotels and restaurants.

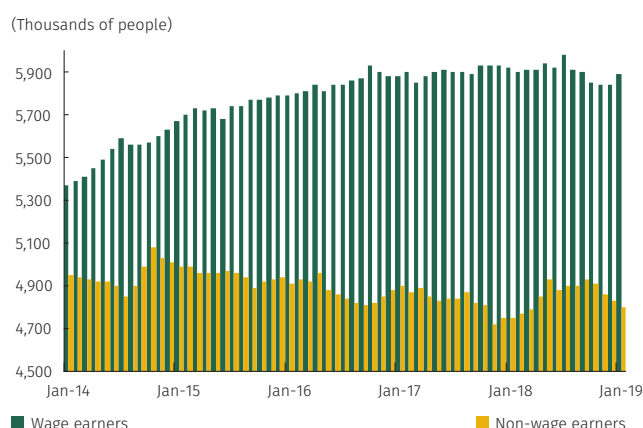
Consistent with the gradual upturn in the construction sector, employment reacted positively in the second half of the year spurred especially by the segment of public works and, to a lesser extent, by the buildings segment.

Graph 2.5
Employment by Type of Occupation
(seasonally adjusted quarterly moving average)

A. National Total

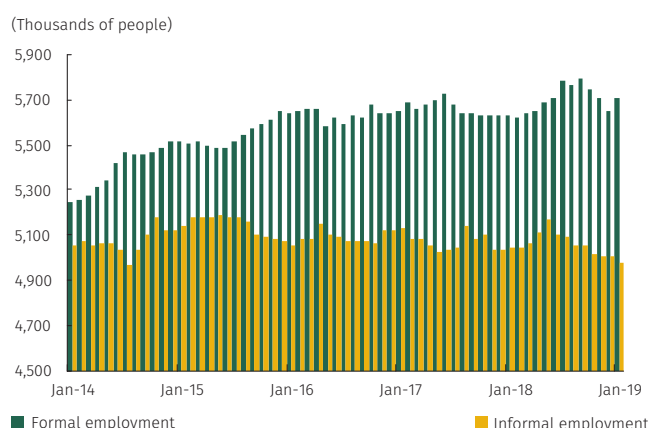


B. Thirteen areas



Source: DANE (GELH) and calculations by Banco de la República.

Graph 2.6
Employment by Formality
(thirteen areas, seasonally adjusted quarterly moving average)



Source: DANE (GELH) and calculations by Banco de la República.

2.2.3 Quality of Employment and Labor Market Conditions

Increases in legal and salaried employment are usually associated with progress in the quality of employment since the workers with these types of jobs enjoy greater job stability, higher wages, and greater access to loans—factors that, in turn, boost confidence, household consumption, and productivity.

Within the national total, the number of wage-earners declined -0.2% per annum on average over the course of 2018 while the number of non-salaried workers grew 0.7% annually. For the thirteen areas, the expansion of salaried employment had an annual average of zero, while non-salaried employment expanded 0.5% per annum (Graph 2.5). The growth rates for formal³² and informal employment in the thirteen areas, in turn, were 0.6% and -0.1% per annum respectively during 2018 (Graph 2.6).

The difference between the patterns of the two types of classification of urban employment quality is explained by the formally employed non-wage-earner. Total urban employment can be divided into four groups depending on whether or not it is wage-paying and whether or not it is formal. The formal wage-paying and informal non-wage-paying are the ones with the largest share of the total (Table 2.3). As an average for the year, the only group that registered a significant annual growth was the informal wage-paying which includes, along with others, independent professionals and technicians. In contrast, the rest of the groups decreased, as was the case for formal wage-paying and informal non-wage paying, or saw a slight rise such as in the case of

32 All workers or laborers in private companies and the government are considered wage-earners. This is based, in turn, on DANE's definition, which is founded on the resolutions of the United Nations International Labor Organization (ILO), employers and workers in companies that have up to five workers, unpaid family workers, unpaid workers in other household companies or businesses, domestic workers, day laborers or persons, and independent workers who work in establishments that have up to five people with the exception of independent professionals are informal (DANE, 2009).

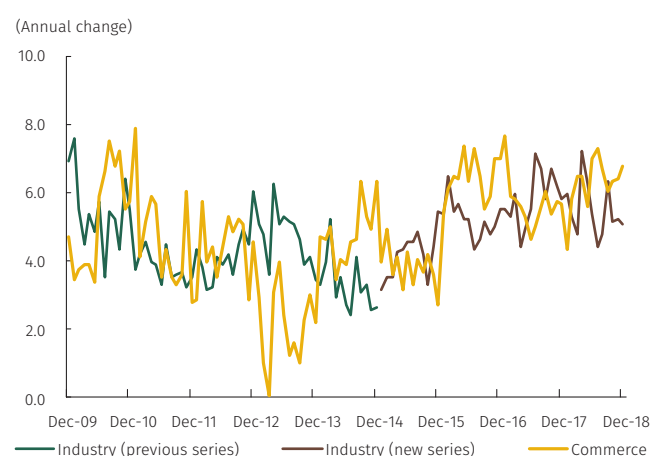
Table 2.3
Classification of People Employed by Type of Employment

Informal work	Informal non-wage-earners
Workers in private companies with up to 5 employees	Non-professional and technical self-employed workers, domestic help, bosses, and workers without pay in businesses with up to five employees.
Formal wage-earners	Formal non-wage-earners
Government workers In addition to workers in private companies with more than five employees.	Self-employed professionals or technicians. In addition, workers (self-employed non-professionals, domestic help, bosses, and workers without remuneration) in companies with more than five employees.

Source: *Banco de la República* (Labor Market Report, March 2019).

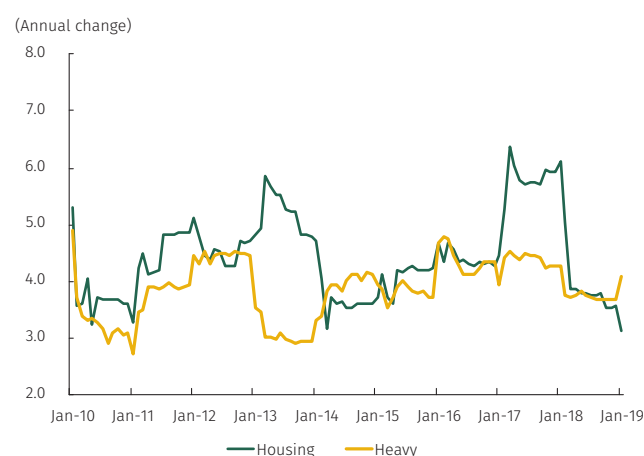
Graph 2.7
Nominal Wage Index

A. Industry and Commerce



Source: DANE (EMCM and GELH), calculations by *Banco de la República*.

B. Housing and Heavy Construction



Source: DANE (ICCV and ICCP), calculations by *Banco de la República*.

informal wage-paying. Thus the zero growth of all of the urban wage-paying is due to the small increase in informal wage-paying, which was offset by the decrease in formal wage-paying while the increase in the total number of formal urban employees is the result of the significant growth in formal non-wage-earners.

2.2.4 Wage and Labor Costs

The information available suggests that a large part of the salary adjustments that were seen in 2018 stood above the inflation target. Between January and December, the nominal wages in retail trade and industry rose 6.3% and 5.5% per year, on average, respectively (Graph 2.7, panel A). With regards to heavy construction and housing construction, the nominal wages registered an average annual growth of 3.8% and 4.0% respectively. In the last few cases, the expansion rates remained relatively stable throughout the year after the readjustments in the first quarter (Graph 2.7, panel B).

2.2.5 Outlook for 2019

Based on the outlook for economic recovery, a moderate improvement in the labor market indicators is anticipated for 2019. Although a more dynamic economy is expected for this year, there will probably still be an excess of spare capacity in the economy that could hamper the reaction of the labor market.

The indicators registered in January 2019 showed a slight recovery with regard to December in the levels of national and urban employment as well

as in the formally employed and salaried workers in the thirteen areas. Nevertheless, the national and urban UR figures will remain above the levels presented in the same quarterly moving average (November to January) as in previous years.

Given the above, substantial pressure on wages and, through this channel, on prices is not likely to be seen. However, the adjustment of the minimum wage could have an impact on setting prices for some unskilled labor-intensive services as well as generating disruptions that could affect the growth of net employment. Specifically, increases in the minimum wage translate into higher costs for companies which can affect the hiring and firing decisions since the demand for labor is expected to be negatively associated with wages. Along this line there is evidence³³ indicating that the effect of the adjustment to the minimum wage on the net growth of total employment and formal employment is negative.

2.3 Inflation

Inflation reverted to the target in 2018 after several years of significant deviations due to various supply shocks. The disappearance of these shocks together with a monetary policy that kept inflation expectations quite close to the target contributed to these results.

Over the last year, in particular, the shock associated with the increase in indirect taxes in 2017 faded. The decrease in inflation also took place in an environment of excess production capacity with an economy that has slowly become more dynamic but is still growing below its natural output level. Due to that, the pressure on prices coming from demand have been very low. A relatively stable exchange rate over a large part of the year, stable or declining international prices for agricultural raw materials, and an ample domestic agricultural supply can be added to the above.

With figures that should fluctuate around 3.0% for both the total CPI and core inflation, large changes in the trend of annual inflation are not expected for 2019. Moderate and transitory upward pressure is anticipated due to the depreciation of the peso, a weak *El Niño*, and the 6.0% increase in the minimum wage. Nevertheless, the presence of a still negative output gap, lower levels of indexing, and inflation expectations that are close to the target will exercise an offsetting downward influence that will prevent inflation from significantly moving away from 3.0% and will probably to maintain a convergence trend towards this level, especially during the second half of the year.

A moderate improvement is expected in the labor market indicators for 2019.

In 2018, inflation reverted to the target.

33 See the July 2018 Labor Market Report, "Signs of Recovery in a still Favorable Labor Market" (*Banco de la República*).

2.3.1 Inflation in 2018

At the close of 2018, annual consumer inflation stood at 3.18%, thus showing a significant decline in comparison to the result from a year ago (4.09%) and, in practice, converging with the long-term target set by the BDBR (Table 2.4). Broadly speaking, the final result was within what market analysts and the technical staff at *Banco de la República* had forecast the previous year.

In 2018, on par with headline inflation, there was also a marked reduction in core inflation which converged with 3.0% as well (Graph 2.8). The average of the four indicators monitored by *Banco de la República* closed at 3.03% in December of that year compared to 4.66% in December 2017. The decline occurred in all of the indicators with two of them (CPI excluding food and regulated items and CPI excluding perishable food, fuel, & utilities) ending up below 3.0%. The CPI excluding food had the highest indicator at 3.48% (Table 2.4).

With these results, three years of inflation significantly deviating from its target came to an end as a result of a succession of various supply shocks of which the most notable were the depreciation of the peso associated with the distortion of crude oil prices in 2014 and 2015, the intensity of *El Niño* between 2015 and 2016, and the increase in the

Table 2.4
Consumer Price and Core Inflation Indicators
As of February 2019

Description	New CPI weights ^{a/}	Dec-17	Mar-18	Jun-18	Sept-18	Dec-18	Jan-19	Feb-19
Total	100.00	4.09	3.14	3.20	3.23	3.18	3.15	3.01
Excluding food ^{b/}	76.16	5.01	4.05	3.81	3.71	3.48	3.46	3.14
Tradables	19.16	3.79	1.80	1.83	1.57	1.09	0.99	0.80
Non-tradables	42.31	5.49	4.76	4.27	4.13	3.79	3.87	3.38
Regulated items	14.69	5.86	6.01	5.82	6.03	6.37	6.08	5.72
Food ^{c/}	23.84	1.92	0.98	1.74	2.05	2.43	2.56	2.84
Perishables	3.15	5.84	7.13	8.47	9.51	8.88	8.89	8.32
Processed food	11.90	-0.91	-2.01	-0.91	-0.72	-0.08	0.22	0.64
Eating out	8.79	5.21	3.32	3.13	3.32	3.68	3.68	3.97
Core Inflation Indicators								
Excluding food		5.01	4.05	3.81	3.71	3.48	3.46	3.14
Core 20		4.87	4.04	3.58	3.56	3.23	3.09	3.13
CPI excluding perishables, fuel, & utilities		4.02	2.99	2.71	2.81	2.76	2.69	2.57
Inflation excluding food and regulated items ^{d/}		4.76	3.49	3.23	3.04	2.64	2.70	2.39
Average of core inflation indicators		4.66	3.64	3.33	3.28	3.03	2.98	2.81

a/ Weightings by the new methodology used to calculate the CPI starting in January 2019.

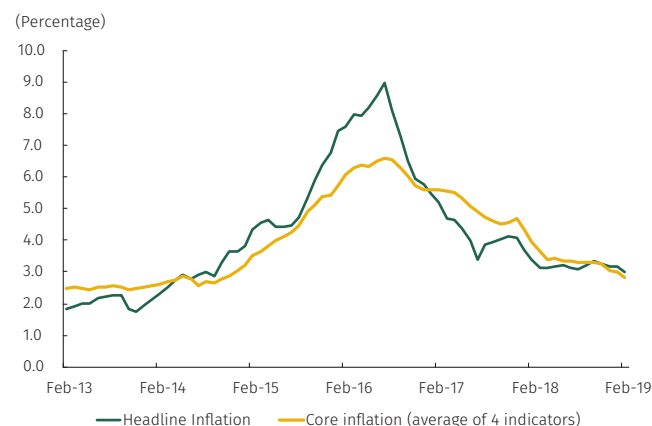
b/ Calculations by *Banco de la República* using the new methodology. This excludes the division of food and the subclasses corresponding to eating away from home.

c/ Calculations by *Banco de la República* using the new methodology and including the division of food and the subclasses corresponding to eating away from home.

d/ Calculations by *Banco de la República*

Source: DANE, calculations by *Banco de la República* (BR) with provisional classifications.

Graph 2.8
Performance of Headline and Core Inflation



Source: DANE, calculations by Banco de la República

value added tax (VAT) and other indirect taxes in 2017. Added to that is an economy that, at least at the beginning of this upward cycle in prices, presented a high utilization of its production factors and a positive output gap.

In this environment, monetary policy (with a 325 bp increase in rates between September 2015 and July 2016) made an important contribution to the process of inflation converging with its target. Due to that, the supply shocks that had battered prices over the last three years had a limited impact on inflation expectations and less permanent effects on annual consumer inflation. Since last year, with the stabilization of expectations at levels close to 3.0% and the dissipation

of the direct effect of a large part of these shocks, the interest rates have declined and are, at present, in slightly expansionary territory.

In 2018, in particular, the decrease in inflation was the result of the dissolution of the most recent shock which was the increase in indirect taxes. As was explained in last year's July report, this occurred in the first three or four months of the year and became especially evident with the drop in the annual variation of the CPI for tradable goods (excluding food and regulated items) and secondly, in the one for the non-tradable goods that were the baskets that were most affected by the tax adjustment at the beginning of 2017 (Table 2.4). Based on *Banco de la República's* estimates, the tax increase would have probably had a 50 to 60 bp upward impact on annual inflation, thus delaying its convergence with the target for one year. But with the disappearance of the impact, this process was resumed, and, starting in March, the annual inflation fluctuated between 3.1% and 3.3%.

In addition to this fact, other factors contributed to the decline and stabilization of inflation close to the target. First of all, even though growth figures surged with respect to 2017, it remained below its potential and, because of that, the economy continued to show excess productive capacity. Under these circumstances, the pressure on prices from demand remained weak thus resulting in low adjustments to prices for non-tradable goods and services (excluding food and regulated items), in particular, but also in CPI segments such as eating out and some tradable goods.

A second factor was the absence of inflationary pressure from the exchange rate throughout the year. In the first semester, this was explained by the stability that the peso has shown. During the second half of the year, there was a trend towards depreciation that was accentuated in recent months. Nevertheless, no pass-through of this

Food prices contributed to keeping inflation close to the target.

phenomenon to consumer prices, particularly for tradable goods as has happened in the past, has been seen. However, the chance that other factors such as decreases in international prices and in transportation costs (the latter would be due to the decline in the international fuel prices) may have neutralized upward pressure because of the higher depreciation in the latter part of the year cannot be ruled out.

A favorable climate and downward pressure from the international prices for imported agricultural raw materials also contributed to keeping inflation close to the target. Products like rice which depend on the weather and are somewhat important in the basket of consumer goods decreased in price. Something similar happened to other imported products such as oil and grain and, in this case, the reason was probably stable or declining international prices. This made it possible to offset the upward impact associated with the depreciation of the peso in the second half of the year.

During 2018, the upward pressure came from prices of regulated items.

Various perishable products showed substantial increases in 2018 after the low prices during the immediately preceding year. This was in line with what was forecast and the normal agricultural production cycle. Nevertheless, these rises were mitigated by the downward pressure cited earlier and kept the total food price inflation at a low level.

During 2018, the primary upward pressure on inflation came from the prices of regulated goods and services. Over the course of this year, the annual variation of regulated items fluctuated around 6.0% and, in December, it stood at 6.37%, a higher rate than had been seen 12 months earlier (5.86%). Heading up the rises within this sub-basket are the electricity fees which ended the year with an annual change of 8.82% due to regulatory changes, etc. However, significant increases in fuel prices (7.28%), and in the water rates (6.56%) were also seen.

2.3.2 Outlook for 2019

Annual consumer inflation should remain very close to the specific 3.0% target throughout 2019. In the first two months of the year, the results have been lower than expected. In February, in particular, the annual inflation rate stood at 3.01%, a decline compared to the figures for December 2018.

During the first two months, there were downward surprises mainly because of the prices of tradable and non-tradable goods although the same thing also happened in the basket of regulated items. In the first case, the annual change has continued to decline slowly so far this year (from 1.09% in December 2018 to 0.80% in February 2019), and there was no evidence of the expected pass-through of the accumulated depreciation to these consumer prices. The annual change in non-tradable goods, in turn, declined significantly (from 3.79% in December 2018 to 3.38% in February of this year) hand in hand with

lower indexing, a negligible impact from the minimum wage, and low pressure from demand. Within this sub basket, the slower pace of adjustments affected a wide range of items including services such as health, education, etc. In the case of education, it must be added that changes in the way they are measured with the new methodology and the basket DANE has introduced could also explain the decline in the indicator as will be pointed out later (Table 2.5).

There was also a decline in the annual change in regulated items which was possible thanks to the limited rises in the fees for electricity and fuel. However, as was stated earlier, there is a possibility that the downward trend in these rates could be reversed in the coming months. With respect to food, a rising trend was seen, although it wasn't as sharp as expected. This indicates that these prices had probably not been exposed to climate shocks related to an apparent *El Niño* weather pattern.

One factor that will continue to determine consumer prices this year is the presence, once again, of spare capacity and, therefore, an output gap in negative territory. Just as in 2018, this circumstance should translate into limited demand pressure on consumer prices and, in particular, on the prices for non-tradable goods. The annual change for these will continue to decline and approach 3.0%.

Inflation should remain very close to the target in 2019.

Table 2.5
Changes in the CPI Basket

Expenditure groups	2008 CPI weightings	Expenditure divisions	2018 CPI weightings
Food	28.21	Food and non-alcoholic beverages	15.05
		Restaurants and hotels	9.43
Clothing	5.16	Clothing and footwear	3.98
Housing	30.10	Lodging, water, electricity, gas and other fuel	33.12
		Furniture and household items	4.19
Health	2.43	Health	1.71
Transportation	15.19	Transportation	12.93
Communications	3.72	Information and Communications	4.33
Recreation and culture	3.10	Recreation and culture	3.79
Education	5.73	Education	4.41
Other expenditures	6.35	Alcoholic drinks, tobacco, and drugs	1.70
		Various goods and services	5.36
Total	100.00	Total	100.00

Source: DANE, calculations by Banco de la República

Nevertheless, with a gradual rise in growth, those excesses will tend to diminish and the output gap should close as the year progresses and over a longer period. Thus, its deflationary influence will lose relevance over time.

The stability predicted for inflation in 2019 also results from a lower level of indexing given that inflation at the end of the year closed below where it did in 2017 and very close to 3.0%. Thanks to that, various prices that are indexed to past inflation will tend to present a slower pace of adjustment than they did last year. Included among them are rentals which carry a lot of weight in DANE's new basket (25% of the total CPI). Added to the above is the presence of some inflation expectations that remain relatively close to the target (around 3.3% over horizons of between one and three years). These will also contribute to moderating the price adjustments of a wide range of goods and services including both tradable and non-tradable goods.

The above factors should offset, to a large extent, the upward pressure that will weigh on prices in 2019. A moderate depreciation of the exchange rate is expected for this year. This will probably pass through to domestic prices although in a low proportion and similar to what has been seen in the past. Along this line, part of the accumulated depreciation at the end of 2018, which has not passed through to prices so far, is expected to do so over the course of the year in parallel with the upswing in demand. That being the case, the annual variation of tradable goods, which is currently at low levels, should increase gradually and approach 3.0%.

For the remainder of 2019, the basket of regulated items will continue to exert significant upward pressure on inflation with annual adjustments that will remain above 5.0%. The main source of this pressure will again be electricity rates. The delay in the delivery of electric power generation projects that are essential for the country, the greater need for investment in distribution and innovation, and the financial problems of some companies will lead to fees being readjusted at relatively high percentage rates. In fuel prices, the readjustments should be lower than the ones last year due to the drop in international prices and the fact that the depreciation is likely to be moderate.

Significant shocks to inflation arising from climatic phenomena such as *El Niño*, are not anticipated for 2019. In the event that they occur, they will probably be weak in nature and, therefore, their impact on food prices is likely to be very low or even zero. What happened in the first two months of the year supports this prediction. Even so, the annual change in the CPI for food will probably register some price increases that are above 3.0% in the next few quarters and into the beginning of 2020 as part of the normal agricultural cycle.

In the first two months of 2019, inflation has been lower than expected.

The basket of regulated items will exert upward pressure on inflation.

No significant shocks to prices caused by climatic phenomena are anticipated.

Based on what was seen at the beginning of the year, it is estimated that the 6.0% increase in the minimum wage, 3 pp higher than inflation at the end of the year and higher than the target, will probably have very little effect on the price adjustments in the coming quarters. Nor are the rest of the salaries expected to exert upward pressure on prices partly because of the recent increases in the unemployment rate.

That being the case, total consumer inflation should show few changes for the remainder of 2019 and present a level that is slightly higher than 3.0% for a large part of the year. A slight increase is expected going into 2020 that would be due, above all, to the pass-through of the depreciation of the exchange rate to the prices for tradables and to the changes in the basket of regulated items.

Regarding the central forecast for inflation for 2019, there are both upward and downward risks. In the first case, there is the possibility of a deterioration in the external context that might translate into lower growth for our trading partners and a fall in the terms of trade. This could result in pressure on the depreciation of the exchange rate that is higher than what was considered in the central forecast. Other upward risks come from a possible impact of *El Niño* on prices for regulated items, especially energy, and from an increase in indexing associated with the 6.0% rise in the minimum wage. With respect to the downward risks, a growth of domestic demand and a lower-than-estimated GDP has been identified mainly because of more sluggish investment and, secondly, a greater foreign capital inflow due to the ample international liquidity which could bring about a smaller-than-anticipated depreciation of the peso.

Last of all, it should be mentioned that starting in January of this year, DANE introduced a new basket with relevant changes in the items and weights just as is shown in Table 2.5.³⁴ The implementation of this new methodology should not generate significant variations in inflation during the year. However, in the medium term it could reflect changes in its performance. In particular, it is possible that its volatility could decrease given the lower weighting for food which is usually the CPI segment with the greatest variability. Inflation could acquire greater inertia and rigidity given the weight that is now granted to rentals. The pace of adjustment for this variable is likely to change very slowly over the course of the year.

2.4 Interest Rates and Financial Sector

In 2018, the BDBR lowered the benchmark rate by 50 bp. Thus, the policy rate stood at 4.25% at the end of 2018. During the year, the

³⁴ See the December 2018 Inflation Report, Box 2, page 55.

majority of the market rates decreased more than the benchmark rate primarily during the first half of the year, as did the deposit interest rates also.

In the public debt market, the price of the securities issued by the Government (TES) dropped slightly. This is in spite of an external context that is not very favorable due to the lower global liquidity conditions, the uncertainty due to trade tensions, and the higher perception of risk in the emerging economies.

During 2018, the trend towards a slowdown that the credit establishments' main balance sheets had shown since 2016 came to a halt. However, the growth rates of these items remained low.

Finally, note that as of December 2018, there was a decrease in the growth rate of the credit establishments' risky and non-performing loan portfolios and a slight upturn in the total loan portfolio.

2.4.1 Performance of Interest Rates in 2018

2.4.1.1 Banking Interest Rates

During 2018, the BDBR cut the benchmark rate by 50 bp (two 25 bp reductions in the January and April meetings of that year). Thus, the policy rate stood at 4.25% at the end of 2018. During the year most of the market rates declined more than the policy rate did. Specifically, the largest declines were seen in the rates for credit cards, consumer and commercial, and ordinary and preferential loans while the rates for mortgages and treasury loans reacted more slowly. The deposit rates, in turn, also declined, the rates for certificates of deposit (CD) dropped more than the policy rate, and these reductions occurred mainly during the first half of the year (Table 2.6).

Over the course of 2018, the interbank interest rate (IBR) shrank 49 bp, and the overnight BBI receded 47 bp. This led to values of 4.25% and 4.10% respectively for the end of the year. In the same period, deposit rates decreased a little more. In particular, the term deposits (DTF) dropped 75 bp and the CDT aggregate rate, 65 bp. In December 2018, the former stood at 4.54% while the latter was 4.90% (Graph 2.9). In addition, the short-term CD rates showed more pronounced declines than the long-term rates (more than 1 year).

In December 2018, the average rate for commercial loans was 8.86% which is the lowest one registered since December 2014. So far this year, the rate for commercial loans decreased more than the policy rate (-73 bp). This is explained by a 109 bp decline in the rate for ordinary loans and an 80 bp decline in the one for preferential loans. The treasury loan rates, in turn, decreased to a lesser extent (-37 bp). During the year, the amounts disbursed for commercial loans were similar to those registered

The benchmark rate was lowered on two occasions in 2018, ending the year at 4.25%.

Table 2.6
Financial System Main Nominal Interest Rates
(percentage)

Date	Policy Interest Rate (at end of month)	Deposit rates (monthly average)				Lending rates (monthly average)						
		DTF	CD	Weighted liabilities ^{a/}	Three month IBR ^{a/}	Consumer	Households Mortgage ^{b/}	Credit card ^{c/}	Ordinary	Preferential	Treasury	Total assets ^{d/}
Jun-16	7.50	6.91	7.86	6.24	7.54	19.14	12.49	29.44	14.31	11.71	12.10	14.77
Jul-16	7.50	7.26	7.95	6.54	7.69	19.27	12.63	30.28	14.71	12.02	11.96	15.28
Aug-16	7.75	7.19	8.04	5.78	7.82	19.54	12.73	30.45	14.72	12.14	12.32	15.23
Sept-16	7.75	7.18	7.79	6.06	7.74	19.57	12.78	30.60	14.63	12.07	11.84	15.34
Oct-16	7.75	7.09	7.52	5.66	7.71	19.84	12.70	31.38	14.47	11.97	12.03	15.41
Nov-16	7.75	7.01	7.51	5.44	7.63	19.64	12.68	31.39	14.59	11.99	12.32	15.52
Dec-16	7.50	6.92	7.41	5.29	7.20	19.39	12.59	31.52	14.06	11.58	11.86	14.45
Jan-17	7.50	6.94	7.41	6.02	7.33	20.88	12.45	31.87	14.30	11.27	12.22	15.11
Feb-17	7.25	6.78	7.43	5.63	7.03	20.03	12.56	31.69	13.79	11.37	12.03	14.87
Mar-17	7.00	6.65	7.08	5.16	6.64	19.78	12.42	31.61	13.84	11.22	11.96	15.13
Apr-17	7.00	6.53	6.84	5.36	6.20	19.87	12.38	31.71	13.71	10.65	11.26	14.47
May-17	6.25	6.17	6.54	5.05	5.87	19.78	12.36	31.54	13.37	10.09	10.68	14.02
Jun-17	6.25	5.96	6.31	4.23	5.50	19.47	12.02	31.18	12.89	9.75	10.57	13.50
Jul-17	5.50	5.65	6.00	4.38	5.35	19.39	11.57	31.16	12.64	9.47	10.27	13.58
Aug-17	5.50	5.58	6.06	4.52	5.19	18.91	11.29	30.97	12.27	9.14	9.47	13.27
Sept-17	5.25	5.52	5.97	4.12	5.15	18.87	11.01	30.19	12.04	8.77	9.17	12.69
Oct-17	5.00	5.46	5.93	4.95	4.95	18.88	10.91	29.93	12.13	8.79	8.79	13.05
Nov-17	4.75	5.35	5.82	3.70	4.56	18.67	10.90	29.40	11.72	8.72	9.11	12.87
Dec-17	4.75	5.28	5.55	3.69	4.66	18.66	10.83	28.89	11.33	8.43	8.16	11.66
Jan-18	4.50	5.21	5.59	3.84	4.48	19.25	10.74	29.37	11.59	8.28	8.04	12.53
Feb-18	4.50	5.07	5.50	3.96	4.41	18.60	10.82	29.55	11.32	7.92	7.99	12.06
Mar-18	4.50	5.01	5.33	3.48	4.33	18.33	10.77	29.23	11.14	7.72	8.44	11.72
Apr-18	4.25	4.90	5.23	3.86	4.20	18.16	10.66	28.72	11.17	8.02	8.02	12.21
May-18	4.25	4.70	5.05	3.63	4.20	17.77	10.61	28.59	11.18	7.82	8.50	12.37
Jun-18	4.25	4.60	4.91	3.10	4.25	17.89	10.58	28.58	10.80	7.96	7.74	12.35
Jul-18	4.25	4.57	4.96	3.73	4.25	18.41	10.57	28.19	10.97	7.87	9.22	12.33
Aug-18	4.25	4.53	4.87	3.34	4.25	18.00	10.50	27.90	10.70	7.57	8.87	12.49
Sept-18	4.25	4.53	4.87	3.50	4.26	17.70	10.48	27.63	10.70	7.68	9.43	12.25
Oct-18	4.25	4.43	4.83	3.62	4.28	17.50	10.45	27.22	10.55	7.31	8.05	11.98
Nov-18	4.25	4.42	4.77	3.27	4.28	17.28	10.45	26.65	10.56	7.60	9.08	11.96
Dec-18	4.25	4.54	4.90	3.66	4.27	17.21	10.38	27.22	10.24	7.63	7.79	11.13
Jan-19	4.25	4.56	5.12	3.72	4.26	18.43	10.39	27.15	10.82	7.79	8.36	12.69
Feb-19	4.25	4.57	5.20	3.83	4.27	17.82	10.43	27.24	10.29	7.66	8.15	11.93

a/ End of month data

b/ Corresponds to the amount-weighted average of the rate for peso- and UVR-denominated disbursements for the purchase of non-low income housing. Before figuring out the weighted average for the UVR-denominated credit rate, the annual change in UVR was added.

c/ Neither one-payment purchases nor advances are included

d/ Corresponds to the amount-weighted average of consumer, ordinary, preferential, and treasury loans. The weight of Treasury loans corresponds to one fifth of their weekly disbursement.

Source: Office of the Financial Superintendent of Colombia (Form 088 and Form 441).

a year ago. The same thing happened for the preferential and ordinary loans while the treasury loan amounts registered decreases.³⁵

With respect to the rates for loans to households, the largest decreases occurred in the rates for credit cards (excluding one payment purchases and advances) (-166 bp) and consumer loans (-145 bp) in 2018 while the rates for loans for housing purchases declined 44 bp during the same period. The consumer interest rate stood at 17.21% in December 2018, which is the lowest since September 2015. By modalities, so far in 2018, the loan rates for loans covered by automatic payroll deductions did not decline as much as all other loans did. In contrast, disbursements through automatic payroll deduction loans was higher than what was registered for all other types of loans.

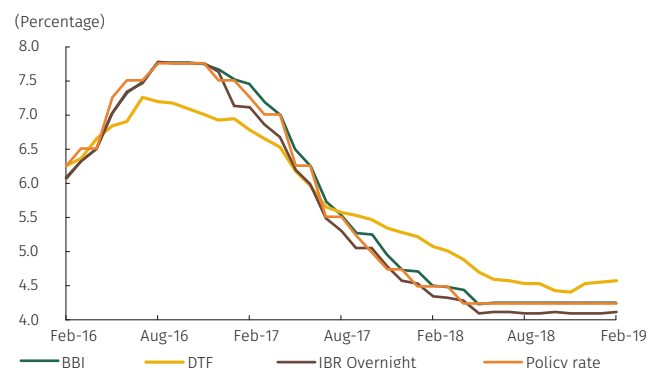
The rate for credit cards, in turn, (excluding one payment purchases and advances) dropped 166 bp during 2018 and stood at 27.22% in December 2018. This could be influenced by the performance of the usury rate which declined by 206 bp during the same period. Last of all, the average mortgage rate stood at 10.38% which is its lowest level since May 2002.

As of February 2019, there were slight increases in the deposit rates, while assets showed significant increases especially in consumer and treasury. This was the result of the seasonal adjustment that the lending rates present at the beginning of the year since there are usually increases during those months in the rates and decreases in the disbursements of loans, especially of the loans covered by automatic payroll deduction.

In real terms, there have also been declines in interest rates on loans and for deposits. When the average of several measurements of inflation expectations is discounted³⁶ (ex ante interest rates in real terms), both the commercial rates and those for households and deposits were reduced. At the close of the year, all of the rates in real terms, except for the ones for credit cards, were at levels that were below the historical average (Graph 2.10).

Graph 2.9

Banco de la República Benchmark Interest Rate ^{a/}, Interbank Rate (IBR) ^{b/}, overnight IBR ^{b/}, and DTF ^{b/}



a/ Policy rate based on date of the BDBR meeting.

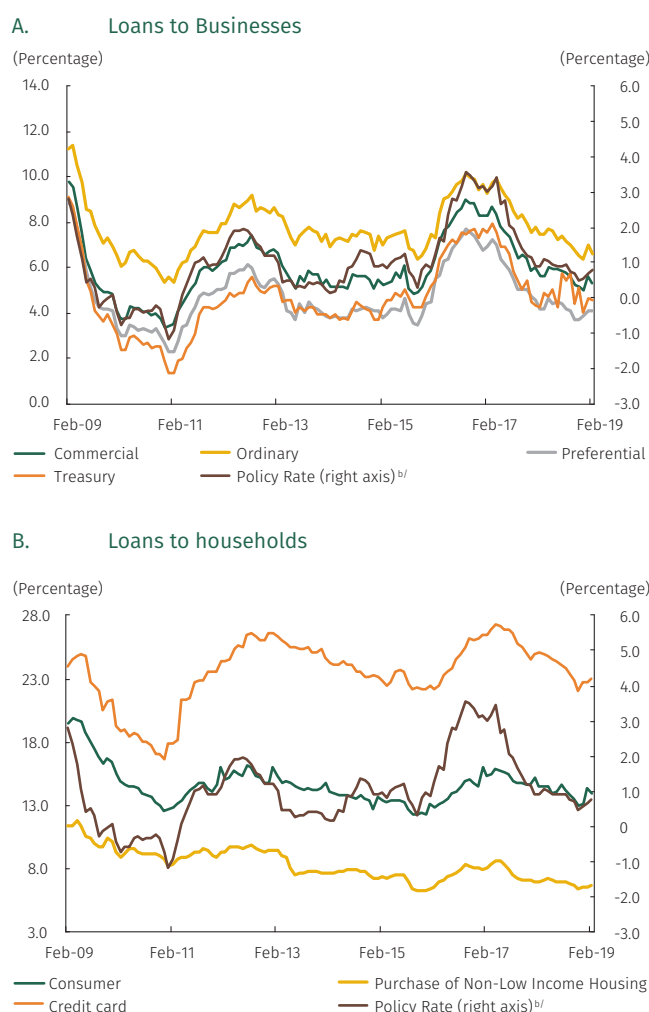
b/ The average monthly rate is used.

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

35 On average, the disbursements of treasury loans weigh 3.0% of the commercial disbursements.

36 Specifically, if the average of five measurements of inflation expectations is discounted: for a year from now obtained from a survey of financial analysts; for a year from now obtained from the quarterly survey of economic expectations; from the breakeven inflation for two and three years from now and the forward breakeven inflation for two to three years from now.

Graph 2.10
Real Interest Rates ex ante^{a/}



a/ The average of several measures of inflation expectations are used as a deflator (for 1 year from now obtained from the monthly survey of financial analysts, for 1 year from now obtained from the quarterly survey on economic expectations, the BEI for 2 and 3 years from now, and the forward BEI for 2 and 3 years from now).

b/ The policy rate is the one set by the BDBR at the monthly meeting; the remaining rates correspond to the average for the month (weighted by amount).

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

Graph 2.11
Zero-coupon Peso-denominated TES rate, and Banco de la República Liquidity Expansion Auction Rate



Sources: SEN and MEC, calculations by Banco de la República.

2.4.1.2 Government Bonds Market

The price³⁷ for securities issued by the government (TES) declined slightly in 2018 in line with the global conditions of lower liquidity, uncertainty with respect to the trade tensions between the United States and China, and the increased perception of risk in emerging economies (Graph 2.11). The market performed well, since the average daily amount of Colombian public debt securities traded on the SEN and MEC trading systems was COP 8.7 trillion (t), a figure that is higher than the COP 6.0 t that was seen in 2017. The share of the local TES market held by foreigners, in turn, remained stable as it went from 26.6% at the close of 2017 to 26.4% in 2018.

During 2019 there have been appreciations in the short and medium tranche curves related to the publication of inflation figures that are lower than ones expected by the market. As of March 13, the average daily amount of public debt securities traded stood at COP 5.20 t.

The performance of the yield curves was mixed in the region during 2018 with appreciations in Brazil and Chile in view of a better outlook in the economic and political scenario. In Mexico and Peru, in turn, there were devaluations primarily because of the political uncertainty and the negative performance of the prices for raw materials. So far in 2019, the yield curves in the region have appreciated in line with the local market (Graph 2.12).

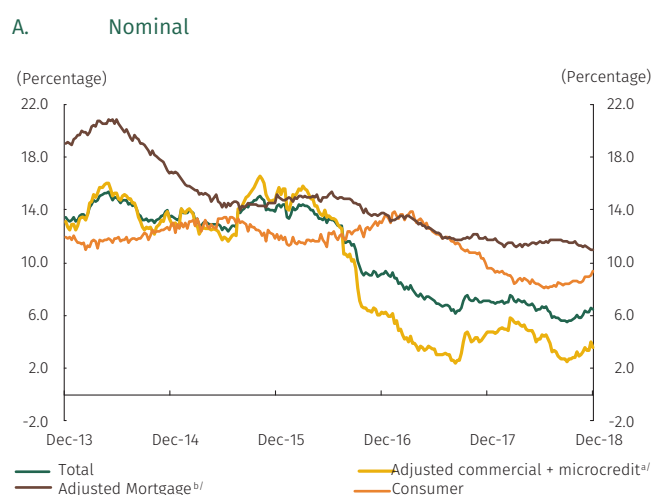
37 There is an inverse relationship between the price of a TES and its market interest rate. For example, if a security promises pay \$110 at maturity and its market price is \$100, its interest rate is 10%. If the market price of the same security rises to \$105, then its rate falls ($4.8\% = [110/105] - 1$) because, at the end, the holder will still receive the same \$110.

Graph 2.12
Index of Zero-coupon Rates for 10 Years Ahead in Latin America and other Emerging Economies

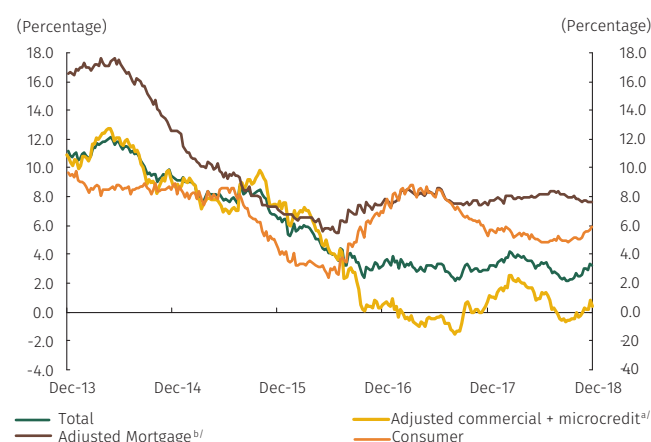


Sources: Bloomberg, SEN (electronic trading system) and MEC (Colombian electronic market), Banco de la República calculations.

Graph 2.13
Annual Growth of the Loan Portfolio in Legal Currency by Type



B. Real (deflated by the total CPI)



a/ Includes adjustments for operational leasing

b/ Does not include securitizations of the mortgage loan portfolio.

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

2.4.2 Credit institutions' main accounts³⁸

The trend towards a slowdown that the credit establishments' (EC) main balance-sheet accounts had shown since 2016 came to a halt during 2018. However, the growth rates for the loan portfolio and deposits were low. Specifically, as of December, the gross loan portfolio in legal currency grew 6.5% per annum (3.2% in real terms) and the same amount for the yearly average, and deposits (liabilities subject to reserve requirements, LSRR) grew 5.2% as of December and 5.5% on average (2.0% in real terms at the close and 2.2% on average).

In December, the gross loan portfolio in legal currency registered a balance of COP 430.777 t. Its sluggishness during the year was explained by the performance of the loans to companies (commercial and microcredit) which represent a little more than half of the balance of the total gross loan portfolio in legal currency.³⁹ There were significant amounts in partial payments, prepayments, and penalties in the commercial loan portfolio, especially in the third quarter and their effect even caused the balance to fall during this period. However, the average annual growth of the portfolio of loans to businesses was 4.1% which was similar to the one in 2017 (4.0%) but higher in real terms (0.9% in 2018 versus 0.3% in 2017) (Graph 2.13).

The consumer and mortgage loan portfolios showed a better performance than did the commercial loan portfolio and continue to explain the increase in the CE loan portfolio although together they grew less than they did in 2017. Thus, the annual change in the consumer loan portfolio went from 12.2% on average in 2017 to 8.7% in 2018 (from 7.6% to 5.3% in

38 Information on the credit institutions is obtained from the Format 281 issued by the Office of the Financial Superintendent of Colombia. The figures correspond to December 28, 2018 while the annual comparisons were made with December 29, 2017. Due to the fact that, starting January 1, 2015, the credit institutions have been following the international financial reporting standards (IFRS) to report on the information from their balance sheet accounts, statistical adjustments have been included to offset the effects of the change in methodology.

39 The commercial category represents close to 51% of the total portfolio and microcredit is 3.0%.

real terms) and the annual variation in the mortgage portfolio⁴⁰ from 12.6% to 11.5% (from 7.9% to 8.0% in real terms) (Graphs 2.13 and 2.14).

Despite the average sluggishness of the loan portfolio during the year, a small recovery has been seen in recent months (Graph 2.13). This may be due to both supply and demand factors. The most recent survey on the loan situation⁴¹ indicates that the CEs saw increases in demand for all of types of credit during the fourth quarter. This would be supported by low interest rates and would be consistent with the improvement in the performance of the economy. In addition, unlike the previous editions of the survey, the majority of the banks stated that they maintained or lowered their requirements for all types of loans (except for housing) as well as reducing loan rejections.

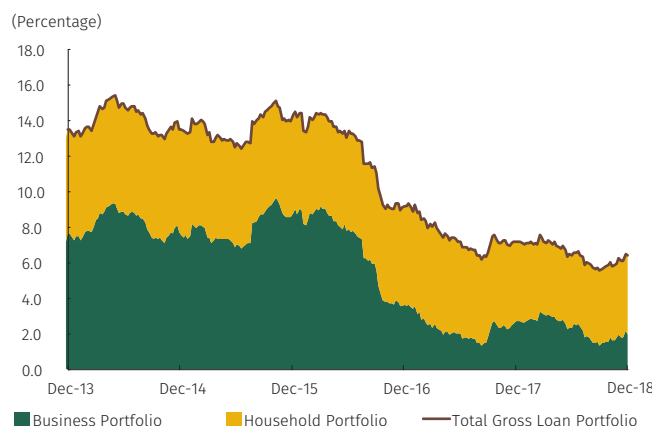
Investments in legal tender, the component with the second largest share of the CE assets (16.7%), in turn, registered a balance of COP 91.819 t at the close of 2018 with an annual change of 11.6% and 12.4% on average during the year (in real terms, 8.1% at the close and 8.9% on average). With this, the participation within the asset increased a little (it went from an average of 16.0% in 2017 to 17.0% in 2018). Note that part of the increase is due to the appreciations (close to a quarter).

In the area of liabilities, the deposits of the various agents in the EC (LSRR) totaled COP 440.026 t as of December. Based on the type of deposit, the first half of the year was characterized by similar growth for both demand and term (CD + bonds) deposits. Nevertheless, during the second half of the year demand deposits surged and ended the year with a growth rate that was higher than the term liabilities (8.1% and 1.7% respectively and 4.7% and -1.4% in real terms) (Graph 2.15). For the latter, those for fewer than eighteen months were stronger than the ones with a longer maturity than that.

40 This series includes adjustments for securitization of the mortgage portfolio.

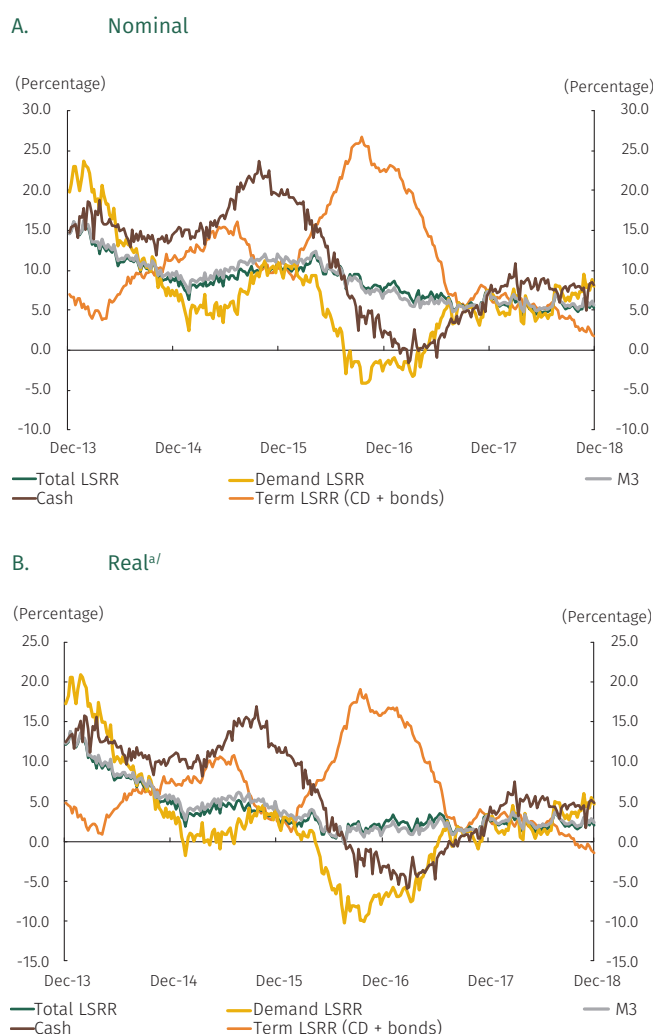
41 Survey as of December 2018; available at <http://www.banrep.gov.co/es/reporte-de-la-situacion-del-credito-en-colombia>.

Graph 2.14
Contribution of Loans to Households and to Businesses to the Growth of the Total Loan Portfolio in Legal Currency



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

Graph 2.15
Annual Growth of M3, Cash, and Liabilities Subject to Reserve Requirements (total, demand, and term)



a/ Deflated by the total CPI
Source: Office of the Financial Superintendent of Colombia, calculations by *Banco de la República*.

Monetary Base

At the close of 2018, the balance of the monetary base stood at COP 98.081 t with a nominal annual growth of 10.4% (7.0% in real terms), which is significantly higher than what was seen the previous year (5.0% and 0.9% in real terms).

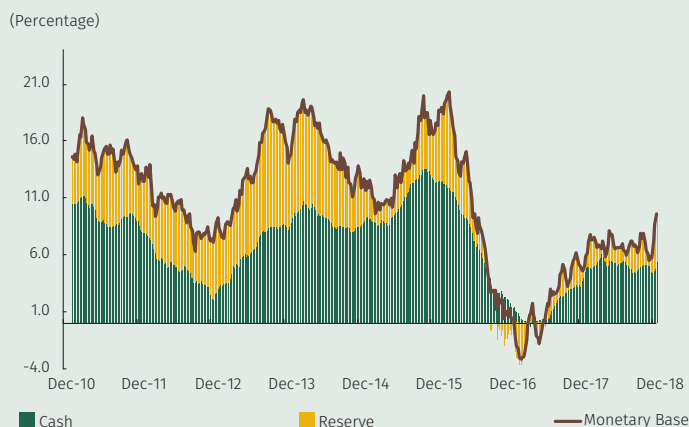
Based on use, the increase in the monetary base is due to the recovery of cash which, in addition to being its main component (66% of the base), went from growing 2.4% per annum on average in 2017 (-1.8% in real terms) to 8.0% yearly during 2018 (4.6% in real terms). Although to a lesser degree, the bank reserves also contributed to the increase in the monetary base as it went from growing 0.7% per annum on average in 2017 (-3.5% in real terms) to 5.4% in 2018 (2.1% in real terms) (Graph A).

Based on sources (Graph B), the COP 9.270 t increase in the monetary base between December 2017 and the same month in 2018 is primarily due to the transactions with the national government (deposits in the Bank, remuneration on them, and the transfer of *Banco de la República's* profits). Between the close of 2017 and the close of 2018, these created a COP 7.250 t increase in the monetary base. The liquidity transactions (discounting the DRNCE and the net interest from such transactions) also contributed to the increase in the primary money in the economy (COP 4.944 t in annual terms).

In addition, the purchase of foreign currency through put options announced by the BDBR at the end of September 2018 which were auctioned and exercised during the last quarter of the year added COP 1.279 t to primary liquidity. Other items in the Bank's L&P and balance sheet also generated a COP 1.031 t expansion of the base for the full year.

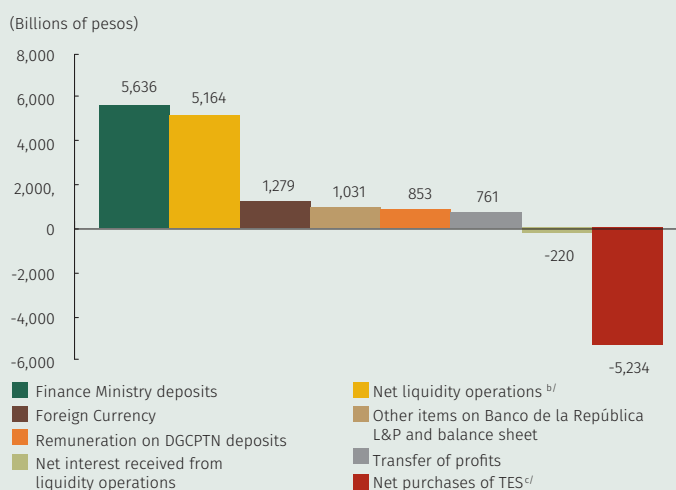
In contrast, and unlike the previous two years, the effect of the TES transactions

Graph A
Contribution of Cash and the Bank Reserves to the Growth of the Monetary Base



Source: Banco de la República.

Graph B
Origin of monetary base in 2018^{a/}



a/ Figures at the close of the calendar month

b/ Corresponds to the net transactions, i.e., it includes the expansion repos and the balance of non-reserve interest-bearing deposits (DRNCE) for all maturities.

c/ This is the result of purchases minus sales and maturities of these securities held by Banco de la República.

Source: Banco de la República.

was to cause a COP 5.234 t contraction. This is a result of COP 5.054 t in portfolio sales to the Ministry of the Treasury and Public Credit in October¹ and COP 915 b in maturities that were partly offset by the definitive purchase of COP 735 b in securities on the market during June and July.

1 For more information, see <http://www.banrep.gov.co/es/noticias/operacion-venta-de-tes-al-ministerio-de-hacienda-05-10-2018>.

This performance suggests a preference for demand or short-term payment methods in a context in which the interest rates for deposits and inflation are declining. Along the same line, the demand for cash recovered and at the close of the year, it had grown 8.2% per year and 8.0% on average for the year (4.9% and 4.6% in real terms). These levels have not been seen since mid-2016 (Graph 2.15).

The performance of the LSRR and cash was reflected in M3 (LSRR plus cash), which is the monetary aggregate that includes the set of financial assets that agents can use to make payments in legal currency. At the close of the year, this aggregate stood at COP 504.404 t and grew 5.6% (2.3% in real terms) and 5.8% on average which is a little above the increase in the LSRR due to the behavior of cash (Graph 2.15). Furthermore, the change in LSRR and cash had an impact on the monetary base (See the shaded area).

2.4.3 Some Measurements of Financial System Risk⁴²

As of December 2018, the credit establishments (CE) continued to make progress on adjusting to the shocks experienced by the Colombian economy since mid-2014. This has been reflected in a decrease in the growth rate of the risky and non-performing loan portfolios and a slight upturn in the total portfolio. In spite of the above, the credit risk indicators have shown slight declines over the past year although they are less pronounced than in the recent past. Nevertheless, the indicators of profitability have registered increases during the period under analysis and the capital adequacy, both total and core, has been higher than the regulatory minimum.

The growth rate of funding, in turn, understood as the sum of liabilities and equity, registered a recovery during the same period. The indicator of liquidity risk showed a gradual decrease over the course of the year although it is at higher levels than the regulatory requirements. Regarding the TES portfolio, this registered a decline in its market risk indicator in spite of its growth in both the proprietary and managed positions.

The credit institutions' exposure to credit and liquidity risks is presented below and the financial system's risk in the TES portfolio is analyzed.

As of December 2018, the growth rate of the risky and past due loan portfolios declined and the rate for the total portfolio had a slight upturn.

42 The information in this section was obtained from the balance sheets and formats reported by financial entities to the Office of the Financial Superintendent of Colombia.

2.4.3.1 Credit Risk

Over the past year, the indicators of QID⁴³ and QIR⁴⁴ credit risk for the CE have deteriorated slightly, especially due to the performance of the commercial loan portfolio. Notwithstanding the above, there is a stabilization in these indicators. This could mark the end of a period of intense materialization of credit risk. Although the credit establishments have had to deal with the increase in vulnerabilities arising from this risk in recent years, the measurements of core and total capital adequacy registered values of 11.2% and 16.3% respectively thus standing above both the average for the last five years (10.8% and 16.0% respectively) and the corresponding regulatory minimum.

a. Risky Loan Portfolio

During the same period, the risky loan portfolio slowed down as it went from growing at 28.2% to 3.3% in real terms. This performance was mainly a response to the risky commercial loan portfolio which presented a 3.7% growth rate after having reported a rate of 31.7% a year ago. Slowdowns were also seen in the consumer, microcredit, and housing portfolios, although these were lower than the commercial loan portfolio. In spite of the decline in the growth of the risky loan portfolio, it continued to expand at a faster rate than the total portfolio thus generating an increase in the total QIR during the period under analysis. This effect was mainly generated by the low growth that the commercial loan portfolio registered and which prevented the improvements in its risky loans from bringing about better results in its QIR.

The aggregate indicator increased 4 bp, thus reaching a value of 10.0% in December 2018. By type, deterioration was registered in the commercial and housing loan portfolios, while the consumer and microcredit portfolios showed improvements (Graph 2.16). However, there was a stabilization of the indicator for all of the loan portfolios in the last six months thus halting the growth trend that has been registered since the end of 2015.

b. Non-performing portfolio

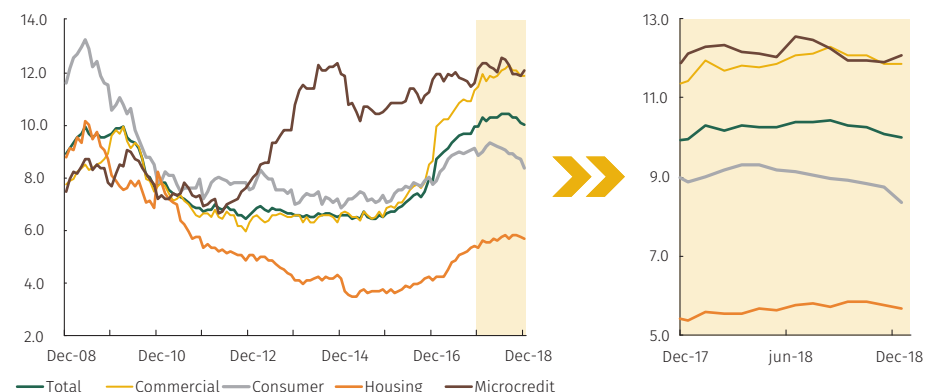
With regard to the materialization of credit risk, the real, annual growth rate of the non-performing loan portfolio declined 29.8 pp during the period under analysis and stood at 7.4% in December 2018. The types that registered the strongest slowdowns were commercial, housing and consumer with falls of 39.1 pp, 27.5 pp, and 27.4 pp respectively. In spite of the fact that the past-due

43 The QID is defined as the ratio between the loan portfolio with a greater than 30-day default and the total loan portfolio.

44 The QIR is defined as the ratio between the risky and the total loan portfolios (the risky loan portfolio corresponds to all the loans with ratings other than A on a scale from A to E where A is the best rating).

Graph 2.16
Quality indicator by risk (QIR)

(Percentage)



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

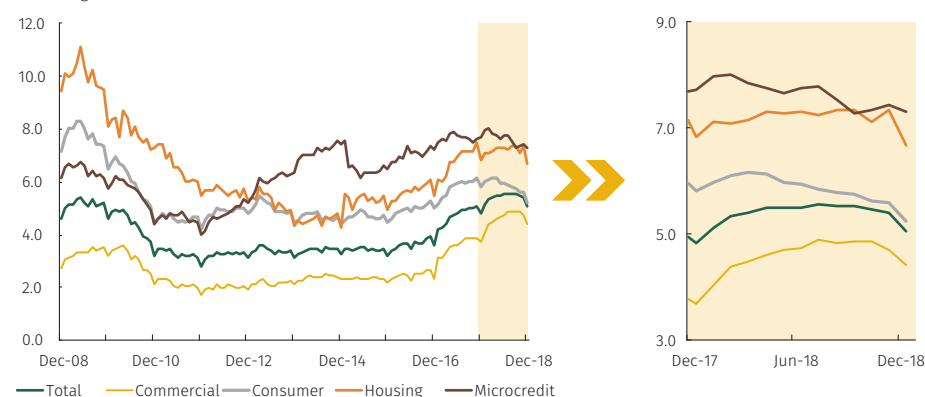
microcredit portfolio was the one with the smallest slowdown, it registered real contractions just like the consumer loan portfolio.

Despite the correction over the last twelve months, the non-performing loan portfolio, just like the risky portfolio, continues to expand at a higher rate than that of the total portfolio. This led to the QID increasing by 21 bp during the period under analysis and reaching a level of 5.0% (Graph 2.17). When evaluating by type, it is evident that the aggregate indicator has been primarily driven by the commercial loan portfolio which rose 71 bp over the past year. In contrast, the QID for the consumer, housing, and microcredit portfolios has decreased during the period under analysis.

When the performance of the QID of the commercial loan portfolio is evaluated by branch of activity, it is evident that the electricity, gas, and water; transportation; construction; and agri-business sectors were the ones where the most risk materialized between the third quarter of 2017 and the same period in 2018 (Graph 2.18). In spite of the above, the indicators of the first three sectors have been affected by idiosyncratic

Graph 2.17
Quality indicator by default (QID)

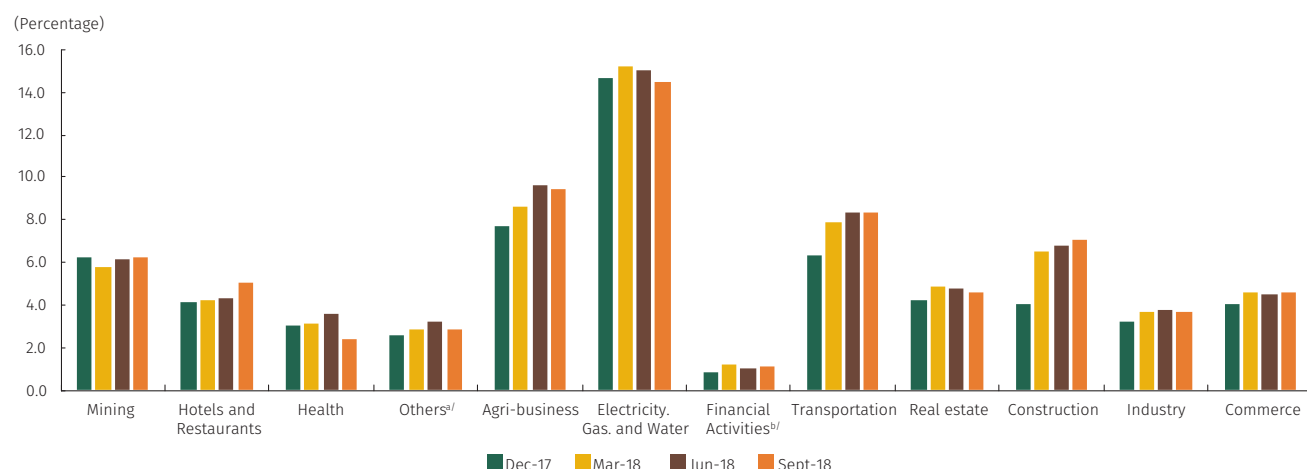
(Percentage)



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

components arising from the situation of the *Concesionaria Ruta del Sol S.A.S.*, the *Electrificadora del Caribe S.A.*, and from the poor performance of the companies that provide mass passenger transportation.

Graph 2.18
Quality Indicator by Default by Branch of Activity



a/ The firms that belong to the following economic sectors are grouped under "other services": public administration and defense, education, health and social services, other community, social, and personal services, private households with domestic help, and extraterritorial organizations and entities.

b/ In the sector of financial activities and insurance, entities supervised by the Office of the Financial Superintendent of Colombia are excluded.

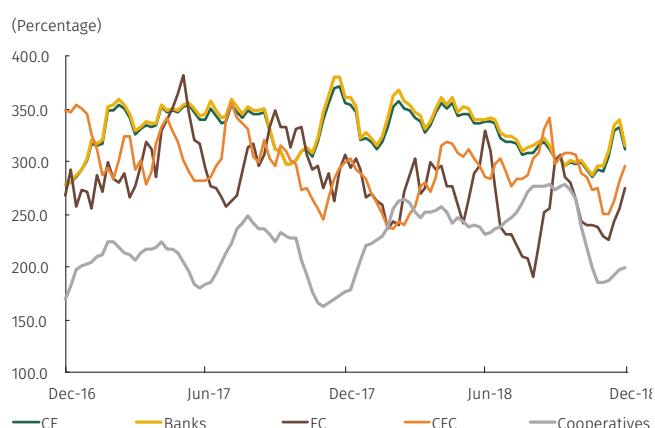
Source: Office of the Financial Superintendent of Colombia, calculations by *Banco de la República*.

2.4.3.2 Liquidity Risk

In order to evaluate the liquidity that credit institutions have to meet their short-term obligations, the liquidity risk indicator (LRIR), defined as the ratio between the balance of liquid assets (available and liquid investments) and an estimate of the net requirements of short-term liquidity (thirty days) is used. If the LRIR is higher than 100%, the institution has enough liquidity to meet their thirty-day obligations, but if not, an institution could have problems covering them in the short term.

As of December 2018, the aggregate LRI of the CE stood at 313.2%, a level that is lower than the average registered in the last 12 months (325.2%, Graph 2.19). The above is primarily due to the lower levels of liquidity that the banks had given an increase in their net liquidity requirements. The indicator for the financing companies (CFC) and the investment banks (IB), in turn, did not register significant variations. In the case of financial cooperatives, the indicator has exhibited a gradual growth. In spite of the fluctuations of the indicator, it is clear that, in the aggregate, the different types of entities have sufficient liquid assets to face their short-term obligations.

Graph 2.19
LRI_R at 30 days^{a/}

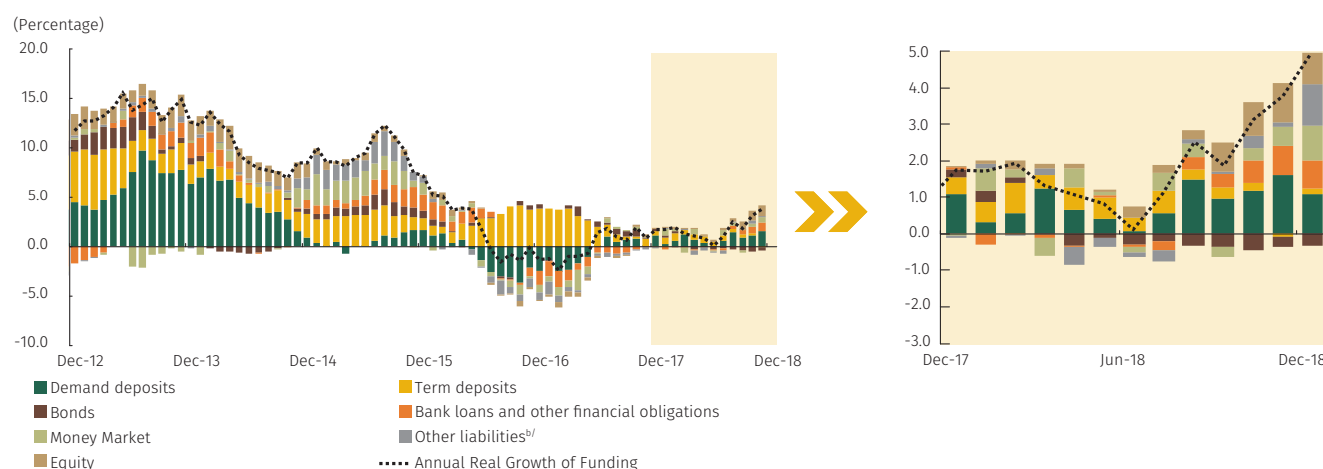


a/ Corresponds to a 4-week weighted moving average.

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

As of December 2018, the funding of the CE registered a recovery in comparison to the previous year (Graph 2.20). This indicator exhibited a real annual growth of 5.0% after it had stood at 1.7% a year ago. By component, the larger spike in funding was explained by a larger contribution from other liabilities, demand deposits, and the money market. Similarly, equity registered a greater contribution due to an upswing in the growth of profits which came to 46.3%.

Graph 2.20

Real, Annual Growth of Funding (liabilities + equity) and Contribution of Their Components ^{a/}

a/ CPI is used as a deflator. Special financial entities (second tier banks) are not included.

b/ Other liabilities include other financial instruments, accounts payable, BOCAS, BOCEAS, etc.

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

2.4.3.3 TES Market Risk

Financial institutions can have TES as part of their assets (proprietary position) or as part of the assets they manage for their clients (third party position). Between December 2017 and the same month in 2018, the financial system's TES portfolio, in both the proprietary and managed positions, rose, and their risk measures declined.

As of December 28, 2018, the value of the TES portfolio in the proprietary position registered 16.2% growth with respect to the same date of 2017. It reached a balance of COP 8.9 t and showed increases in all the types of entities in the financial system with the exception of pension funds and stock brokerage firms (Table 2.7). The most significant increase was for banks, which showed a growth of 14.8% and a balance of COP 43.0 t.

Regarding the managed funds, there was a growth of 14.4% which came to a balance of COP 203.5 t. The pension funds and foreign investors had 14.3% and 12.3% growth respectively in their portfolios. Thus, these agents obtained a 41.6% and 37.2% share respectively of the total funds administered.

Table 2.7
Change in TES Balance in Financial System's Proprietary and Managed Positions
(trillions of pesos)

TES balance (trillions of pesos)		
Entities	Dec 29-2017	Dec 28-2017
a) Financial System: proprietary position		
Credit institutions		
Commercial banks	37.5	43.0
Investment banks	2.6	3.3
Commercial finance companies	0.0	0.1
Financial cooperatives	0.0	0.0
Non-banking Financial Institutions (NBFI)		
Pension Funds	0.2	0.1
Stock Brokerage Firms	1.7	1.5
Trust Funds	0.1	0.2
Insurance and Capitalization Companies	12.9	15.7
Total	55.0	63.9
b) Financial System: Managed Position		
Foreigners	67.4	75.7
Stock Brokerage Firms	0.0	0.0
Trust Funds	67.4	75.7
Pensions	93.5	107.1
Pension Funds	74.1	84.7
Trust Funds ^{a/}	19.5	22.4
Mutual Funds ^{b/}	1.6	2.3
Stock Brokerage Firms	0.5	0.4
Trust Funds	1.1	1.9
Others	15.3	18.4
Stock Brokerage Firms	0.1	0.8
Trust Funds	15.2	17.6
Total	177.9	203.5
c) Others ^{c/}	26.2	26.0
Total supply	259.1	293.4

a/ Pension liabilities managed by trust companies.

b/ Information from the Office of the Financial Superintendent of Colombia format 351.

c/ Others include *Banco de la República*, National Treasury Office, Fogafin, etc.

Sources: Central Securities Depository (DCV in Spanish), *Banco de la República*, and Office of the Financial Superintendent of Colombia, calculations by *Banco de la República*.

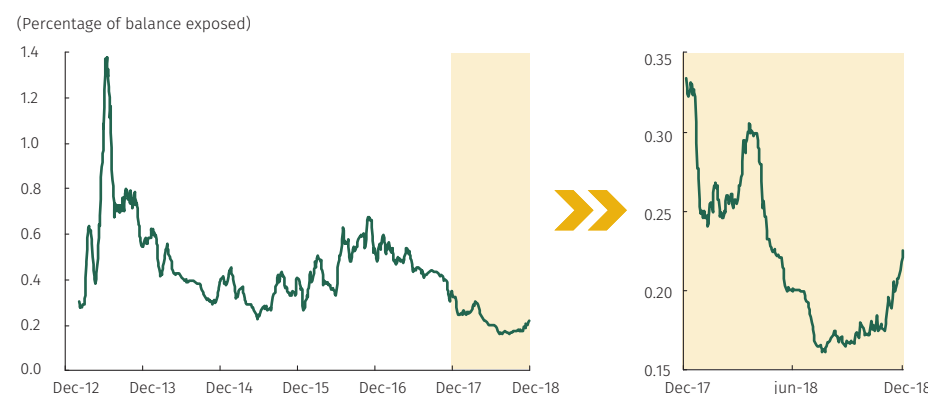
The increase in foreign investors' holdings in the TES portfolio is in line with the trend seen since the beginning of 2014. Nevertheless, the high global liquidity which motivated, in part, foreigners' investments in the country's bonds has decreased due to increases in the benchmark rates in some advanced economies.

Like the rest of TES holders, financial entities may face losses due to valuation resulting from a fall in the price of said securities. This risk

is quantified by the change in the exposed TES balance using a value at risk (VaR) measurement. This methodology, based on the returns observed, estimates the maximum loss that an institution may experience in its investment portfolio over a 1-day horizon for a given level of confidence.⁴⁵ It should be mentioned that an appropriate measure of the financial system's market risk is the VaR of their proprietary position since the losses associated with the portfolios managed by the system are faced by the investors.

As of December 28, 2018, the average monthly VaR for the proprietary position of the financial entities declined with respect to what had been seen 12 months ago (0.2% in comparison to 0.3%, Graph 2.21). The above is a result of the decrease in volatility that the public debt market experienced throughout the year. Furthermore, the indicator is below the levels seen in 2013 when the volatility in the financial markets rose as a result of the announcements about the possible gradual phasing out of the Fed's asset purchase program.

Graph 2.21
Weekly Moving Average of the VaR for Financial System's Proprietary Position



Source: Central Securities Depository (DCV), calculations by Banco de la República.

2.5 External Balance and Foreign Exchange Policy

In the wake of the decline in the terms of trade in 2014, the country's external sector went through a period of adjustment during 2016 and 2017. This was characterized by a significant correction in the current deficit which was initially explained by a contraction in current outflows and, subsequently, by the recovery of income from abroad spurred by not only the larger exports of goods but also by other income such as tourism and remittances. During this period, the performance of the Colombian peso was mainly associated with the

⁴⁵ To illustrate, if the VaR of a financial institution is 5.0% at a 99% confidence level, it indicates that the maximum loss that this entity might face in one day would be 5.0% of the value of their portfolio, and there is only a 1.0% chance of surpassing this.

change in the price for crude oil and, to a lesser extent, to the general strength of the US dollar.

During 2018, the main sources of income from abroad continued as they were, fueled to a large extent by the foreign sales of mining-energy goods. Nevertheless, this growth was not able to totally offset the significant increase in imports of goods and outflows due to factor income. The latter was consistent with the higher growth in spending and local investment and the higher profits of companies with foreign capital. As a result, the current account deficit expanded in 2018 and stood at 3.8% of the GDP. Thus, it was higher than the 3.3% seen the year before. The lower export prices, the larger growth of domestic demand, and the cost of external financing envisioned for 2019 will probably be reflected in a further deterioration of the current balance.

2.5.1 Colombia's Foreign Balance in 2018

Despite the improvement in the terms of trade seen in 2018, the upswing in the pace of economic growth resulted in a greater demand for imports of goods services and in an increase in the profits of companies with foreign capital. The latter were also favored by the higher export prices of crude oil and coal. In fact, during 2018 the country's balance of payments current account registered a deficit of USD 12,661 million (m) which is USD 2,364 m higher than it was a year ago (Table 2.8). As a share of the 2018 GDP, the deficit was estimated to be 3.8% which is 0.5 pp higher in comparison to what was seen in 2017. The current deficit was financed by net capital inflows of USD 11,981 m (3.6% of the GDP) which includes a change of USD 1.187 b in international reserves.⁴⁶ Note that the change in Colombia's balance-of-payments current account has been tightly related to the performance of the trade balance in goods due to the high share that exports and imports have in the country's total current income and expenditures.⁴⁷ Nevertheless, note that the trend of factor income also acquired relevance to such a degree during 2018 that it became an important source of the country's current account deficit.

During 2018, the country's balance-of-payments current account registered a 3.8% deficit as a share of GDP, which is higher than what was seen in 2017.

Thus, the deficit in the balance of trade in goods during 2018 rose USD 745 m with respect to the year before (Table 2.8). The growth of sales abroad of the main products that were favored by the improvement

⁴⁶ Note that this accumulation of reserves is the result of income from the net yields on international reserves amounting to USD 706 m, USD 400 m in net purchases of foreign currency, and USD 81 m in net income from other *Banco de la República* transactions.

⁴⁷ The analysis of the structure and the change in the current account income over the last 15 years shows that foreign sales of merchandise are its main component and hold a share that ranges between 70% and 81% of the total income. Regarding the current expenditure flows, their most important component is importing goods which represented, on average, 64% of the total outlays (61.2% in 2018).

Table 2.8
Colombia's Balance of Payments
(annual flows in millions of dollars)

	2017 (pr)	2018 (pr)	Change (dollars)
Current Account (A + B + C)	-10,296	-12,661	-2,364
(percentage of the GDP)	-3.3	-3.8	
A. Goods and Services (1 + 2)	-8,488	-9,125	-637
1. Goods (a - b)	-4,571	-5,316	-745
a. Exports FOB	39,676	44,316	4,640
b. Imports FOB	44,247	49,633	5,385
2. Services (a - b)	-3,917	-3,809	108
a. Exports	8,461	9,457	996
b. Imports	12,378	13,266	888
B. Factor Income	-8,405	-11,141	-2,736
Income	5,479	6,112	633
Outlays	13,883	17,253	3,369
C. Current Transfers	6,596	7,605	1,009
Income	7,469	8,547	1,077
Outlays	873	941	68
Financial Account ^{a/} (A + B + C + D)	-9,644	-11,981	-2,337
(percentage of the GDP)	-3.1	-3.6	
A. Direct Investment (ii - i)	-10,147	-5,888	4,258
i. Foreign in Colombia (FDI)	13,836	11,010	
(percentage of the GDP)	4.4	3.3	
ii. Colombian Abroad	3,690	5,122	
B. Portfolio Investment (1 + 2)	-1,617	1,222	2,839
1. Public Sector (ii - i)	-7,285	-775	
i. Foreign Portfolio Investment (a + b)	6,695	2,016	
a. International markets (bonds)	2,914	-1,514	
b. Local Market (TES)		3,529	
ii. Portfolio Investment Abroad	-590	1,241	
2. Private Sector (ii - i)	5,668	1,997	
i. Foreign Portfolio Investment (a + b)	1,122	-1,667	
a. International markets (bonds)	650	-844	
b. Local Markets	472	-823	
ii. Portfolio Investment Abroad	6,790	330	
C. Other Capital Flows public sector + private sector	1,606	-8,502	-10,108
D. Reserve Assets	513	1,187	674
Errors and Omissions (E and O)	652	679	27
Memo items			
Financial account excluding change in international reserves	-10,158	-13,168	-3,011
Change in International Reserve	513	1,187	

(pr): preliminary

Note: the results presented at the current date follow the recommendations of the sixth version of the IMF Balance of Payments Manual. Therefore, the financial account is presented with a negative sign for the net capital income. For further information and the methodological changes consult <http://www.banrep.gov.co/balanza-pagos>.

a/ In the financial accounts, the negative sign on net flows (A, B, C, and D) reflects funding resources entering the Colombian economy. In this respect, positive changes imply less foreign financing in the balance of payments.

Source: Banco de la República.

In 2018, the deficit in the balance of trade in goods rose with respect to the prior year.

in their export prices was surpassed by the widespread increase in imports. The country's exports totaled USD 44,316 m during the period under analysis with an annual increase of 11.7% (USD 4,640 m) (Table 2.8). The growth resulted mainly from the larger sales abroad of petroleum and its derivatives (USD 3,603 m) and industrial products (USD 654 m). In contrast, reductions in sales abroad of gold (USD 246 m) and coffee (USD 246 m) were registered.

The higher exported value of mineral products (crude oil, nickel-iron, and coal) is explained by the rise in their export prices (8.5%, 11.1%, and 19.8% respectively) in spite of the fact that the quantities sold had decreased (0.1%, 18.5%, and 29.4%). Moreover, the decrease in the amount received from coffee sold was caused by the decrease in their export price (9.8%) in spite of the higher quantities shipped (0.1%).

Regarding the imported value of merchandise, this registered an overall growth in all areas that was consistent with the recovery in economic activity. Imports of products in 2018 amounted to USD 49,633 m with an annual rise of 12.2% (USD 5,385 m). This performance was mainly due to the growth in imports of supplies and capital goods for industry (USD 3,164 m, 22.1%), of consumer goods (USD 1,112 m, 10.9%), and of purchases abroad of transportation equipment (USD 524 m, 15.0%).

With respect to the deficit in the service account, this declined USD 108 m (Table 2.8) during 2018 due to the higher increase in exports compared to the imported services. As for exports, the higher income received from travel as well as the sale of transportation, business, construction, and communications services stands out. Regarding imports, the greater outlays associated with expenditures on travel as well as the payments for transportation, business, and construction services are the most outstanding.

The increased exports of oil and coal, the higher growth of domestic demand and the increase in interest rates abroad resulted in a significant increase in net outflows due to factor income (USD 2,736 m) (Table 2.8). This increase was mainly due to the increase in the profits obtained by companies with direct investment (USD 2,589 m) and, to a lesser extent, due to the increase in interest payments on foreign debt (USD 781 m). The higher outflows due to foreign direct investment (FDI) profits are specifically the result of the increase in the estimated earnings for the companies that work in transportation, warehousing and communications (USD 932 m), oil drilling (USD 760 m), mining and quarrying (USD 651 m), and commerce, restaurants, and hotels (USD 193 m).

The deficit in the services account declined during 2018.

The increase in the country's current deficit was offset by the greater need for financing. As a result of that, in terms of the financial account,⁴⁸ USD 11,981 m in net capital inflows were registered in 2018. This is USD 2,337 m higher than what was seen the year before when they totaled USD 9,644 m. This result was explained by incoming foreign capital (USD 20,143 m), outflows of Colombian capital (USD 6,910 m), outflows from financial derivatives (USD 65 m), and a USD 1,187 m increase in the international reserves through balance of payments transactions. In terms of the GDP, the financial account rose, going from 3.1% to 3.6% (Table 2.8).

Foreign funds received by the country came from FDI (USD 11,010 m), the net disbursement of loans and other credit from abroad (USD 8,784 m), and portfolio investment in the local market (USD 2,706 m). This revenue was partially offset by the net payments on debt securities issued on the international markets (USD 2,357 m).

In 2018, USD 11,010 m was received through FDI (3.3% of the GDP), an amount that is USD 2,826 m (20.4%) lower than what had been received a year earlier. The FDI received during this period was distributed by economic activity as follows: mining and petroleum (37.0%), financial and business services (18.0%), transportation and communications (14.1%), commerce and hotels (12.0%), manufacturing industry (7.6%) and the remaining sectors (11.3%). The flow of Colombian direct investment abroad, in turn, was estimated at USD 5,122 m and the majority of this was made by businesses in the financial and manufacturing sectors.

During 2018, income from foreign portfolio investment, in turn, totaled USD 349 m, an amount that is lower than what it was a year ago. This was the result of net purchases of TES by non-residents (USD 3,529 m) on the local market, net payments of long-term debt securities on the international markets (USD 2,357 m), and the settlements of variable income securities on the local market on the part of non-residents (USD 823 m). The outflows of Colombian capital for this totaled USD 1,571 m and corresponded to portfolio investments made by companies in both the public sector (USD 1,241 m) and the private sector (USD 330 m) (Table 2.8).

Finally, due to other flows of capital, the country received USD 8,502 m in mainly long-term net inflows. The public sector received USD 2,036 m in net capital and the private sector received USD 6,466 m. Of this amount, the banks signed contracts for USD 1,183 m in net loans and

In 2018, the financial account registered net capital inflows of USD 11.981 b.

Foreign direct investment was equivalent to 3.3% of GDP in 2018.

48 According to the IMF's proposed Balance of Payments Manual, sixth version, the financial account has the same sign as the current account. The financial account is the result of the difference between asset and liability flows. If the current account has a deficit, then the financial account is negative, which indicates that the Colombian economy has had to resort to foreign financing (liabilities) or liquidate its foreign assets in order to finance its current excess spending. In contrast, if the current account is positive (surplus), the financial account will also be positive which would indicate that the country has the capacity to lend funds to the rest of the world.

the remaining amount went to non-banking private sector entities who used these funds to purchase assets abroad and as working capital.

2.5.2 Forecast of the Balance of Payments for 2019

The projection for the balance of payments for 2019 indicates that, as a share of GDP, the most likely figure for the current account deficit will probably be around 4.3%. This forecast is framed within a context of lower crude oil and coal prices and stronger domestic demand. The latter is spurred by the recovery of private investment (Table 2.9).

The impetus that dollar-denominated exports of the main products had in 2018 will probably fade in 2019 in line with the decline in export prices. Likewise, a softening of the growth in our sales of industrial goods abroad is expected in a context in which the growth of our main trading partners is slowing down and there is greater sluggishness in worldwide trade. On the other hand, estimates are that imports of goods will probably continue to grow, albeit at a slower pace than in 2018. This is consistent with the growth of investment and spending

Table 2.9
Projection of Balance of Payments
(millions of dollars)

	2017 (pr)	2018 (pr)	2019 (proj)
Current Account (A + B + C + D)	-10,296	-12,661	-14,341
Percentage of the GDP	-3.3	-3.8	-4.3
A. Goods	-4,571	-5,316	-9,182
Exports	39,676	44,316	44,021
Imports	44,247	49,633	53,204
B. Non-factor services	-3,917	-3,809	-3,050
Exports	8,461	9,457	10,462
Imports	12,378	13,266	13,512
C. Factor Income	-8,405	-11,141	-10,299
D. Transfers	6,596	7,605	8,191
Financial Account (A + B + C + D)	-9,644	-11,981	-14,341
A. Direct Investment (ii - i)	-10,147	-5,888	-6,777
i. Foreign in Colombia (FDI)	13,836	11,010	11,491
ii. Colombian Abroad	3,690	5,122	4,714
B. Portfolio Investment	-1,617	1,222	-3,571
C. Other investment (loans, other loans and derivatives)	1,606	-8,502	-6,873
D. Reserve Assets	513	1,187	2,879
Errors and Omissions (E and O)	652	679	0

(pr): preliminary
(proj): projected
Source: *Banco de la República*.

The projection of the balance of payments for 2019 indicates that the current account deficit as a percentage of the GDP will probably rise.

that motivates imports by all of the sectors in general, especially on the part of the industry.

The result of the trade balance for 2019 is expected to be a higher deficit than the one the year before spurred mainly by the growth in imports of products and, to a smaller degree, by the lower sales abroad of mining-energy products. Thus, a large part of the expansion of the current imbalance could be due to this item (Table 2.9).

With respect to the rest of the components of the current account, these are expected to contribute positively to easing the external deficit. To the extent that lower income from exports is anticipated for oil and mining companies with FDI, this will be reflected in a reduction in their profits due to factor income. In addition to the above, revenue growth from Colombian investments abroad is expected. As a whole, this income is likely to make it possible to offset higher interest payments on foreign debt and improve the profits of businesses with foreign capital that work in sectors other than mining-energy because of the higher growth expected for the economy.

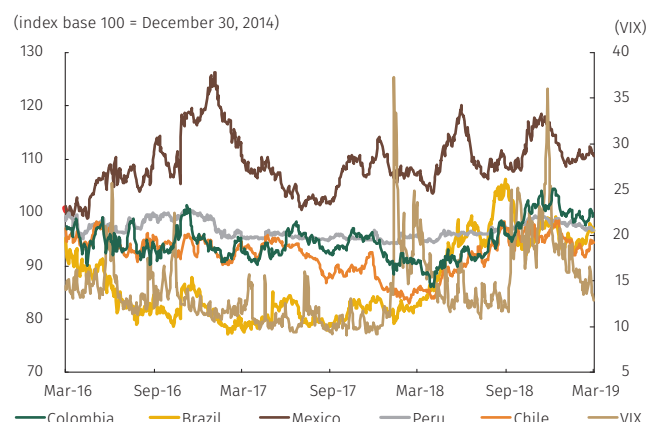
For 2019, the estimate for the deficit in services is that it will be lower than during the previous year (Table 2.9). Regarding exports, these are likely to increase to a greater extent due to the higher income from tourism which is favored by worldwide growth and the level of the exchange rate in Colombia. Meanwhile, the outflows will probably grow at a slower pace due, first of all, to the lower international crude oil prices which may be reflected in a fall in freight costs, and in contracting for technical services in this sector. Secondly, a low rate of growth in spending by Colombian on trips abroad is anticipated because of the high basis of comparison.

Larger current transfers are also expected, above all because of the expected growth of the remittances sent from the United States, Europe, and some Latin American countries.

Compared to the previous report, some international financial conditions that are more relaxed are expected at the moment. These could have an impact on greater flows of foreign capital to emerging economies including the Colombian economy. In terms of financing of the current account, other investment flows coming from the liquidations of assets abroad and, to a lesser extent, contracts for new debt are expected to continue in 2019. A limited growth in FDI flows is anticipated spurred by the funds intended for sectors other than oil and mining, and the purchases of TES on the part of foreigners are expected to continue, although at a slower pace.

2.5.3 Changes in the Exchange Rate in 2018 and during the elapsed months of 2019.

Graph 2.22
Nominal Exchange Rate Indices for Some Latin American Countries



Source: Bloomberg.

During 2018, the US dollar strengthened *vis-à-vis* its peers and emerging countries. This was mainly due to the expansion of the gap between growth in the United States and that of other developed countries, the higher risk aversion in view of commercial tensions between the United States and its trading partners, especially China, and increases in the Fed's monetary policy rate. Specifically, at the close of the year, the US currency had risen 3.1% annually with respect to the main advanced economies⁴⁹ and 12.0% with respect to the currencies of the emerging economies.⁵⁰

In Latin America, currencies depreciated consistent with the overall strengthening of the dollar, although this was also influenced by the electoral and political uncertainty in the region as well

as decreases in the price of crude oil and industrial metals, particularly during the last quarter of the year. In this region, the Argentinian peso (102.3%),⁵¹ the Brazilian real (17.2%), the Chilean peso (12.7%), the Colombian peso (8.9%), and the Peruvian sol (4.1%) depreciated while the Mexican peso remained relatively stable and appreciated 0.04% (Graph 2.22). Likewise, if the average exchange rates of these currencies are compared to the previous year's rates, all of them, with the exception of the Chilean peso, weakened with respect to the US dollar⁵² (Graph 2.22).

In the case of the Colombian peso, it appreciated up until April because of the global performance of the dollar and the positive performance of the price for crude oil during the first few months of the

49 According to the Bloomberg dollar spot index (BBDXY) which includes the currencies of Europe, Japan, Canada, Mexico, the United Kingdom, Australia, Switzerland, South Korea, China, and Brazil. This group of currencies corresponds to those belonging to the United States' main trading partners combined with those with the greatest liquidity (based on the BIS three-year survey).

50 According to the FXJPEMCI index, which includes the currencies of Brazil, Russia, China, Mexico, South Africa, South Korea, Chile, Israel, Taiwan, Peru, Turkey, India, Argentina, Malaysia, Colombia, Hungary, Indonesia, Egypt, Thailand, the Czech Republic, the Philippines, Morocco, Pakistan, Jordan, and Poland.

51 The Argentine peso depreciated during 2018 as a consequence of the macroeconomic imbalances that the country had accumulated for several years and the lower credibility it has with investors with regards to the authorities' ability to implement the necessary reforms. The above was aggravated in view of the request to the IMF to accelerate disbursements of USD 50.000 b from the credit line.

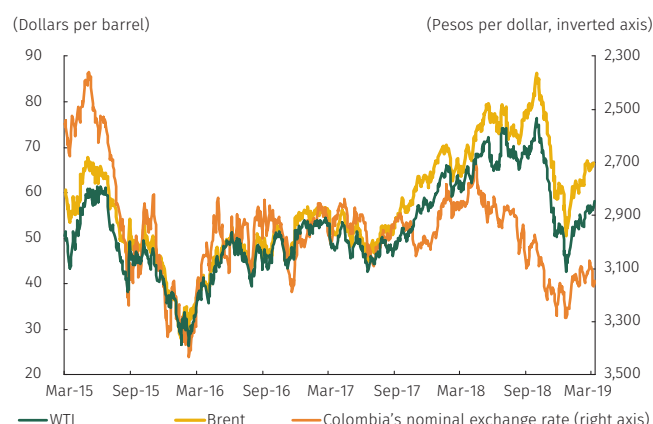
52 The Argentine peso depreciated 69.5%; the Brazilian real, 14.5%; the Mexican peso, 1.7%; the Peruvian sol, 0.8%; the Colombian peso, 0.2%; and the Chilean peso appreciated 1.1%.

year. However, from May to December 2018, the peso depreciated as a consequence of the positive economic data reported in the United States, the increases in the monetary policy rate there, the widespread rise in the perception of risk in the emerging economies, and the collapse of the price for crude oil in the last quarter of the year⁵³ (Graph 2.23). On the local front, the uncertainty about elections in Colombia and, at the end of the year, the expectations of foreign investors entering the TES market due to the proposal to reduce taxes on these investors influenced the performance of the dollar.

In comparison to the currencies of our major trading partners (based on the nominal exchange rate index: NERI), the Colombian peso became stronger during the January to April 2018 period compared to the close of 2017 (Graph 2.24) when the country's exchange rate stood at around COP 3,000 per dollar. Starting in May, there was a trend towards depreciation which lasted until the end of the year but becoming more accentuated starting in September when, once again, it broke the barrier of COP 3,000 per dollar. With this, as was mentioned, the Colombian peso registered a depreciation of 8.9% when December 2017 is compared to the same month in 2018. In terms of the annual averages, the depreciation in 2018 was only 0.2%.

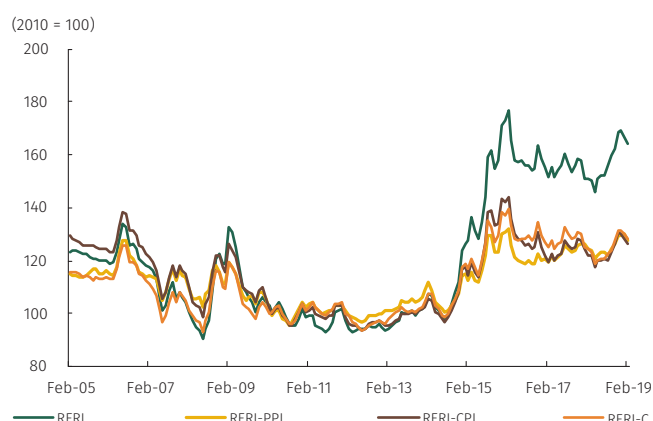
If the changes in prices in Colombia and the rest of the countries are ruled out (real exchange rate index: RERI), the peso was also strengthened with respect to the country's main trading partners as a group during the first half of 2018 (RERI-CPI, RERI-PPI; Graph 2.24). Something similar can be seen if the purchasing power of the Colombian peso is compared to its competitors in the United States in the coffee, banana, flower, and textile markets (RERI-CPI and RERI-C). During the second half of 2018, the greater uncertainty about the speed at which monetary policy in the United States was normalized, the lower flows from foreign investment, and the lower international price for crude oil caused the peso to register a sharp real depreciation. The situation described implied that when the annual averages are taken, the performance of the RER indices could show a real depreciation of around 2.0%.

Graph 2.23
Nominal Exchange Rate and International Price of Petroleum



Source: Bloomberg.

Graph 2.24
Multilateral Real Exchange Rate Indices (nominal and real)



Note: The RERI shows the changes of the nominal exchange rate of the Colombian peso with respect to the currencies of our main trading partners as a group. The RERI-PPI and the RERI-CPI compare the purchasing power of the Colombian peso to our main trading partners by using the PPI and CPI, respectively, as deflators. With the RERI-C (for competitiveness), a comparison is made with our main competitors in the US in the coffee, banana, flower, and textile markets.

Source: Banco de la República

53 Between September 28 and December 31, 2018 the Brent crude oil price fell 35% and the WTI, 38%.

From the beginning of 2019 to February, the Colombian peso became stronger with respect to the US dollar both nominally (3.0%) and in real terms (2.1%). This was influenced, in part, by the recovery of petroleum prices and by the general weakening of the dollar with respect to the rest of the currencies.

2.5.4 International Reserve Indicators

Banco de la República recognizes the importance of having a suitable level of international liquidity to deal with capital outflows as well as to improve confidence in the country. In addition to the reserve accumulation strategy, Colombia has had a line of contingent financing with the IMF (flexible credit line: FCL) since May 2009, which is granted to member countries with good economic performance, prudent policies, and a sound economic policy framework. On May 25, 2018, the IMF reaffirmed the agreement on access to contingent resources for Colombia for an amount of approximately USD 11.350 b⁵⁴ and a period of two years. Although the economic authorities do not envisage making use of these funds, they consider having them prudent in the event of a sudden cut off in external financing. Considering the fact that the IMF considers the FCL a temporary instrument and their intention is to prepare for a possible reduction of that line going into 2020, the BDBR decided to start a program for accumulating international reserves gradually through the mechanism of auctioning put options in an effort to generate the smallest possible impact on the exchange rate at their meeting in September 2018. In the past, this mechanism had been used by *Banco de la República* for similar purposes.⁵⁵

In September 2018, Banco de la República started a program for the gradual accumulation of international reserves.

As of March 2019, five auctions of put options, each of them for USD 400 m, had been carried out. These options are American ones. They have had a period of validity of about a month, and their strike price is equal to the MER. The condition under which they are exercised is that the MER is below its average for the last twenty working days. This will prevent the Central Bank from buying dollars when the Colombian peso has been depreciating for the previous 20 days. In addition, if the exchange rate on the day the put option may be exercised surpasses the MER (average of the day before), the holders of the options will have no incentive to exercise them. That is why the put options are an appropriate mechanism if there is no intention to exert pressure on the exchange rate. As of March 21, 2019, USD 1.539,9 billion have been accumulated through the exercise of these options.

54 For more information, see Box 1: “Colombia’s Flexible Credit Line with the IMF” in the July 2018 Report of the Board of Directors to the Congress of the Republic.

55 The Bank used it to auction options to the authorized intermediaries at the end of every month between November 1999 and September 2002, March and August of 2003, and March and May 2008. Between December 2002 and January 2004, five of these auctions were held but not on a monthly basis.

In order to reinforce the accumulation of reserves and bearing in mind the fact that the national government has been planning to monetize some dollars in its financial program for 2019, *Banco de la República* bought USD 1,000 m from the National Treasury on 1 February 2019 at the MER in effect that day.

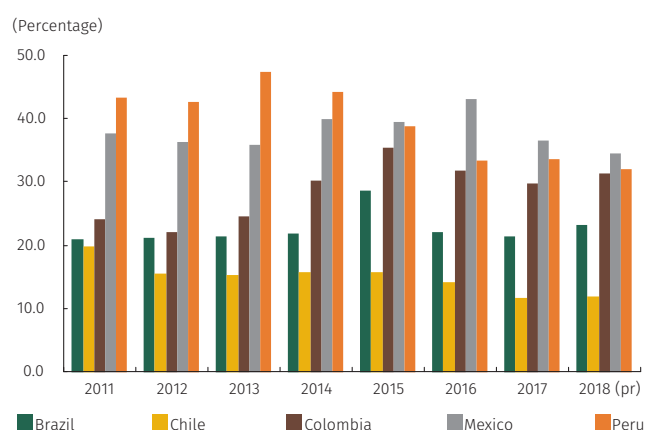
The purchase of dollars through put options and from the government will not interfere with the monetary policy stance inasmuch as the Bank will use the instruments required to ensure that the economy's short-term interest rate is consistent with the benchmark rate set by the BDBR. Up to this point, the national government has kept the pesos from *Banco de la República's* purchase of dollars in deposits at the Bank and the sterilization of the purchases of the put options has been done by reducing the number of expansion repos.

To determine whether or not there are enough international reserves to prevent and deal with external shocks, various indicators, some of which are described below, are used (Table 2.10). In general, the international markets think low values for these could be warning signs of the external vulnerability of an economy. Recently, the Bank implemented a new methodology for determining the appropriate level of international reserves plus the FCL (see the shaded area entitled "New Methodology for Determining the Appropriate Level of International Reserves").

To determine the economy's ability to respond to capital outflows triggered by a speculative attack, the level of the reserves is compared to different economic variables including monetary aggregates M2 or M3. When the various indicators of Colombia's international liquidity are compared to those of countries in the region, the ratio of reserves to M3 for 2018 is seen to register levels that are higher than those of Brazil, and Chile, and slightly lower compared to Peru's and Mexico's (Graph 2.25).⁵⁶

The ratios of net reserves to repayment of the total foreign debt and to the current account deficit show the country's ability to meet its credit obligations with the rest of the world in an extreme scenario where access to international financing is completely closed off. In the ratio of international reserves to debt repayment, debt servicing, and current account deficit plus debt repayment, Colombia historically registers levels

Graph 2.25
International Reserves/M3



(pr): preliminary
Source: Central banks, The Economist Intelligence Unit (updated June 2018) and *Banco de la República*.

⁵⁶ In the case of Peru, the banking reserve requirements are excluded from the balance of the international reserves. Note that the calculation of the dollar-denominated M3 is affected by the behavior of the exchange rate.

Table 2.10
Some Indicators of Colombia's International Reserves

	2011	2012	2013	2014	2015	2016	2017 (pr)	2018 (proj)
Balance								
Net International Reserves (NIR) (millions of dollars) ^{a/}	32,300	37,467	43,633	47,323	46,731	46,675	47,629	48,393
A. Foreign Debt Repayment Indicator								
Foreign Debt Repayments (millions of dollars)	14,364	22,539	16,773	21,756	24,531	23,759	30,212	31,866
NIR/current year foreign debt repayments	2.25	1.66	2.60	2.18	1.90	1.96	1.58	1.52
NIR/coming year foreign debt repayments ^{b/}	1.43	2.23	2.01	1.93	1.97	1.54	1.49	1.63
B. Appropriate External Liquidity Position								
NIR/(current year debt service)	1.85	1.44	2.14	1.84	1.61	1.64	1.34	1.29
NIR/(coming year debt service) ^{c/}	1.24	1.84	1.69	1.63	1.64	1.32	1.27	1.36
NIR/(current year debt repayments + current year current account deficit)	1.34	1.11	1.49	1.14	1.08	1.30	1.18	1.09
NIR/(coming year debt repayments + coming year current account deficit) ^{d/}	0.95	1.28	1.05	1.10	1.31	1.15	1.07	1.10
C. Other International Reserve Indicators								
NIR as months of product imports	7.4	7.9	9.2	9.2	10.8	13.0	12.9	11.7
NIR as months of total imports	6.1	6.5	7.4	7.6	8.7	10.3	10.1	9.2
NIR/M3 (percentage)	24.1	22.1	24.7	30.2	35.5	31.7	29.6	31.4
NIR/GDP (percentage)	9.7	10.1	11.4	12.4	15.9	16.5	15.3	14.7

(pr): preliminary (proj): projected,

a/ The net international reserve balance includes the contributions to the Latin American Reserve Fund (FLAR in Spanish),

b/ The debt repayments for the coming year correspond to the projected payments on foreign debt at the closing of the projected balance of payments, Includes the balance of the short-term debt,

c/ The interest for the coming year corresponds to the estimated payments at the closing of the predicted balance of payments,

d/ The current account deficit for the coming year is a forecast,

Source: Banco de la República,

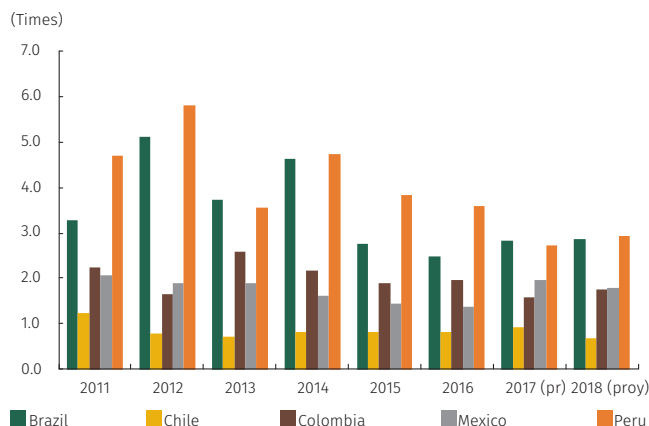
that are above those of Chile and below Brazil's and Peru's (Graph 2.26). For Colombia, these indicators have registered values that, on average, have been above 1⁵⁷ during the latest decade.

In 2018, the indicator of reserves to GDP (GDP adjusted by the purchasing power parity rates: PPP of the World Bank), in turn, stood at levels below those of the rest of the countries in the region. With respect to reserves measured in months of product imports, these show that, in 2017 and 2018, Colombia's relative position was low with respect to Brazil and higher or equal to the rest of the economies analyzed (Graph 2.27).

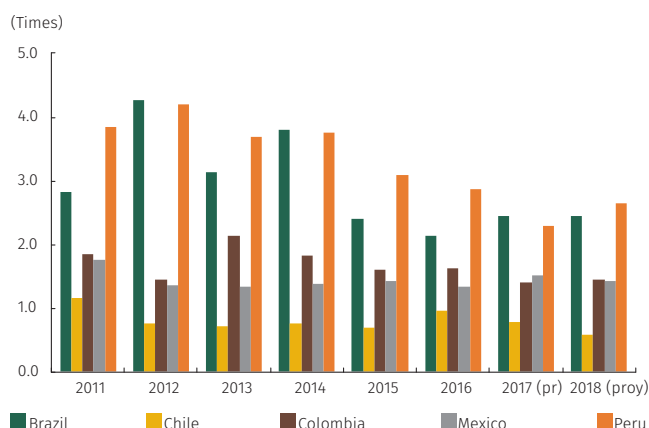
57 According to the IMF (2000), "Debt and Reserve Related Indicators of External Vulnerability", there is empirical evidence for a sample of emerging economies, which makes it possible to establish the value of 1 for these types of reserve indicators as a benchmark. Specifically, the Guidotti-Greenspan rule states that a country's reserves should be equal to the balance of the short-term external debt, which implies a ratio of 1 for this indicator. The explanation is that countries should have enough reserves to be able to withstand a massive withdrawal of short-term external capital.

Graph 2.26
Appropriate Foreign Liquidity Position Indicators

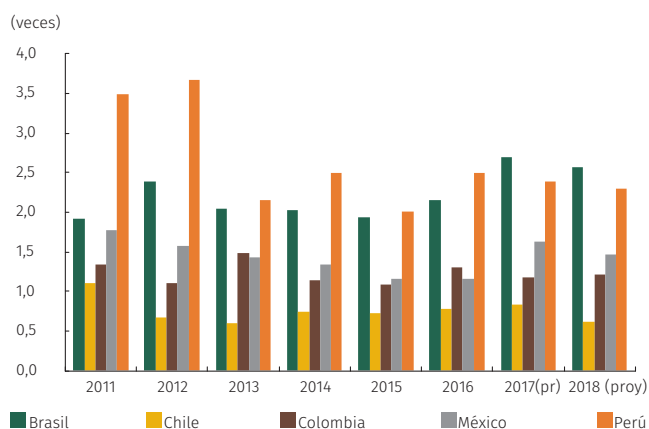
A. Net International Reserves/current year amortizations



B. Net International Reserves/current year debt service



C. Net International Reserves/current year
(current account deficit + debt repayments)



(pr): preliminary

(proj): projected.

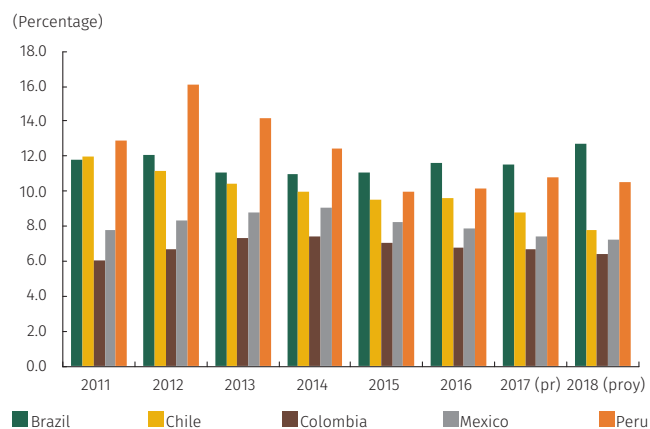
Sources: central banks, The Economist Intelligence Unit (updated as of February 2019), and Banco de la República.

The results of various indicators for Colombia between 2011 and 2018 are shown in Table 2.10. In the case of the ratio of net reserves to M3, an improvement in the indicator was evident up until 2015 along with a slight decline during the two years following that. This 2015 result was associated with the purchase of reserves on the part of the Bank up until December 2014, the slowdown in the growth rate of the monetary aggregate since mid-2013, and the effect of depreciation on the M3 valuation in US dollars. During 2016 and 2017, a growth rate that is higher than that of the reserves was seen for the dollar-denominated M3, which is why the value of the indicator has declined. For 2018, the balance of reserves rose, while the M3 measured in dollars decreased due to the effect of the exchange rate.

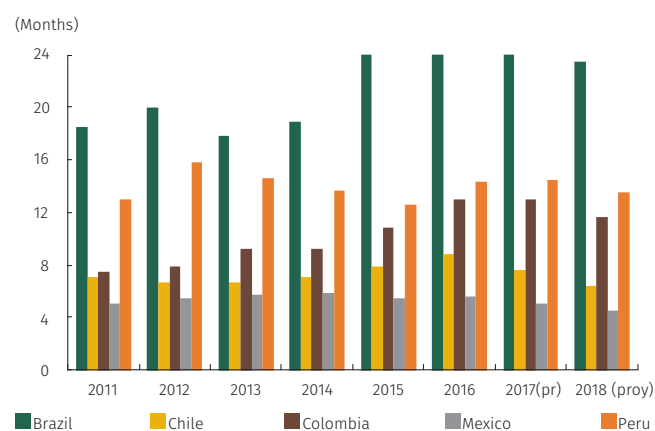
The ratio of net reserves to total imports of goods and services shows the number of months of purchases abroad that an economy is able to cover using its international reserves in the event of an abrupt change in the trade balance. This indicator estimates 9.2 months for 2018, which is higher than the average of 7.7 months since the year 2000. When this indicator is calculated for imports of goods, it rises to 11.7 months.

Graph 2.27
Other International Reserve Indicators

A. Net International Reserves/GDP



B. Net International Reserves as Months of Product Imports



(pr): preliminary (proj): projected.

Note: In order to ensure comparability, the GDP of the countries under analysis, including Colombia, corresponds to the GDP adjusted by the purchasing power parity (PPP) rates. Sources: central banks, The Economist Intelligence Unit (updated as of February 2019), and Banco de la República.

New Methodology for Determining the Appropriate Level of International Reserves

In general terms, central banks with inflation targeting and a flexible exchange rate regime keep international reserves as a precaution so that, in the event of unexpected shocks, there is room to react and thus be able to mitigate chaotic conditions in the foreign exchange market. *Banco de la República* has been using different indicators of international reserves coverage to determine the appropriate level.

The indicators that are analyzed are those that are commonly monitored to judge the degree to which the international reserves are hedged. Among these indicators are the ratios between international reserves and: 1) the balance of the current account of the balance of payments plus the repayments of foreign debt; 2) the gross domestic product (GDP); 3) imports, and 4) a monetary aggregate (M3). The indicator of reserves to GDP was included because, in spite of the fact that it is not suitable for measuring the hedging capacity of the international reserves, it is used to compare countries.

Recently, with the significant increase in the share of the public debt market held by foreign investors, the reserves to M3 indicator was modified so as to take into account the possibility that foreigners will exit this market in the event of a shock. Even though the methodology took into account the commitments that were intended to be covered by the reserves (current account deficit, repayments of the external debt, imports) and the possible outflows that could generate pressure on the foreign exchange market (M3, foreign portfolio investment), not all the items were totaled. In addition, the methodology had some target levels for each indicator and the excess or shortfall of each one with respect to its target was averaged afterwards.

After considering these issues, *Banco de la República* established a methodology in June 2018 for estimating foreign currency liquidity needs in the event of an adverse scenario in the Colombian economy within a one-year horizon. The methodology follows the same line as

the ratio of liquidity coverage (LCR¹) that was proposed in the Basel III supervisory framework for banks which stipulates that the liquid assets should be enough to cover the liquidity needs within a predetermined period and bearing in mind a stress test.

This new approach for determining the appropriate level of reserves assumes that the international reserves should cover at least the forecast of the current account deficit plus repayments on the foreign debt² over the next 12 months and that the international reserves plus the flexible credit line (FCL) of the International Monetary Fund should cover the expected needs of foreign financing and a feasible amount of capital outflows from residents and non-residents. For the latter, outflows from the public debt, stocks, and demand deposit market held by non-residents in local credit establishments as well as resident outflows are considered based on some assumptions. For example, the estimate considers the possibility that, in the event of an adverse shock, the Colombian peso is likely to depreciate and the prices of Colombian assets to lose value. Using data as of December 2018, the reserves plus FCL exceeded the appropriate level of reserves under the new methodology by approximately USD 2 billion.

1 Basel III, B. C. B. S. (2013). "The Liquidity Coverage Ratio and Liquidity Risk Monitoring Tools", Bank for International Settlements.

2 Balance of short-term foreign debt (not including local debt held by non-residents) plus the payment on capital for the medium- and long-term foreign debt.

Box 1

Income from Abroad due to Tourism and Arrival of International Travelers in Colombia by Air

The revenue from abroad associated with international tourism comes from spending by non-resident travelers during their stay in the country, all the purchases of goods and services from Colombian residents during or because of their trip, and the purchase of international airfare from Colombian airlines for travel between their country of origin and Colombia. This revenue is registered as exports of services in the travel and passenger transportation items of the balance of payments. The revenue from travel corresponds to the spending of all the travelers who come to the country, whether by air, sea, land, or river, and the income from passenger transportation is the total of Colombian airline airfare sales to non-residents.

Based on the figures in the country's balance of payments, there were two periods with different trends for the tourism revenue from abroad over the last twenty-five years: between 1995 and 2003 there were no significant changes while between 2004 and 2018 there was high and sustained growth with average annual increases of 11%. This revenue became a significant part of the country's foreign accounts and was consolidated as an important generator of foreign currency. As a result, the revenue due to tourism was USD 1.535 b in 2004 and grew to USD 6.630 b in 2018, which means that its share in the total current foreign revenue and in the total exports of services went from 6.4% to 9.7% and from 63% to 70% respectively during the above-mentioned years.

Although revenue derived from international tourism is still far from being the country's main foreign currency generator, its growth has been fueling the diversification of the export basket since 2004 as can be seen when the exports of this sector are compared with those of, for example, coal, non-monetary gold, and nickel-iron. With respect to the main categories of exports of goods other than mining-energy, that figure was equivalent to 74% of the sales abroad of the main agricultural products (coffee, bananas, and flowers) and 23% of those of industrial goods in 2004.

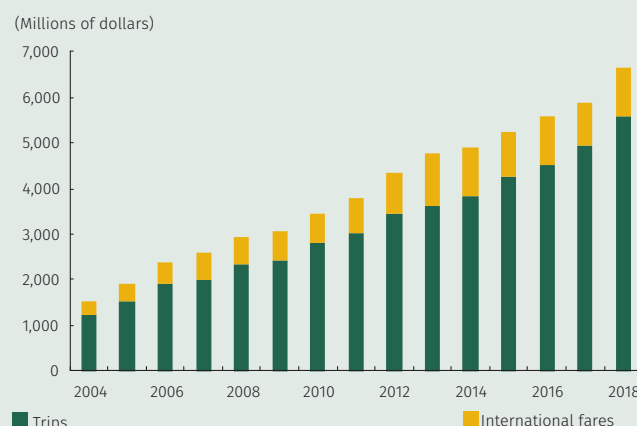
In 2018, revenue from tourism surpassed the income from the main agricultural products by 44% and was equivalent to 63% of the income generated by industrial products.

Two facts stand out in the changes in and breakdown of the foreign currencies generated by international travelers. First, they correspond mainly to travel expenses, which represented 80% of the total revenue from tourism between 2004 and 2018 (Graph B1.1); in addition, and even though revenue from non-resident passenger transportation has also grown, the trips, which multiplied 4.5 times over that period, account for 89% of this total. Second, more than 90% of travel revenue comes from tourists who arrive by air, which is well-above the spending by travelers who arrive by land, sea, and river routes.

Given the predominance of the spending done by tourists who come into the country by air, the foreign revenue they generate, not including airfare sales or other types of transportation, is analyzed below. Furthermore, trips across borders by land and river are, to a greater extent,

Graph B1.1
External Income Associated with Tourism

A. Total Revenue



B. Revenue from international trips



Source: Banco de la República.

for reasons other than tourism such as work and personal purchases that are typical in border areas.

Two components explain the value and trends of the foreign revenue generated by travel: the number of people who enter the country and the total amount spent by each traveler. Panel A of Graph B1.2 shows the value of travel exports as reported in the balance of payments and the number of non-resident tourists who have come to the country by air each year; panel B shows two indices that describe the changes in the number of travelers and the average spending¹ per tourist. Note that the number of travelers increased 3.3 times while spending rose only 1.1 times. This means that the growth in foreign revenue based on travel is mainly explained by a higher number of non-resident tourists. In other words, the continuous increase in the number of arrivals of international travelers is the factor that has spurred tourism exports and has made them a stable and growing source of revenue for Colombia over time.

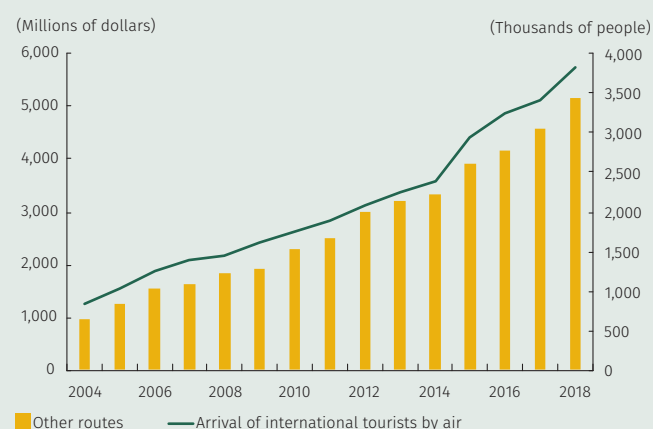
Arrivals of international tourists by air have increased steadily since 2000. In annual figures, the number amounted to just over 500,000 people at the start of the new millennium, exceeded one million in 2005, and is now close to 3.8 million (using information as of 2018). The rate of expansion doubled and reached an annual average of 11.4% during the 2004-2017 period after having grown 5.5% between 1994 and 2003. This positive trend included travelers from all over the world and, to a greater degree, those from South and Central America who registered the highest growth rates during the second period (Table B1.1).

Between 2004 and 2017, the main countries tourists came from were the United States, Spain, and Venezuela, which accounted for 50% of the arrivals (35%, 8.0%, and 7.0% respectively). At the end of that period, the percentage from the United States declined, but it continued to be the main source of travelers (31% of the total). Spain and Venezuela also lost relative importance while other countries in Latin America and the Caribbean drove the growth of tourists coming to Colombia: in 2017, Brazil, Mexico, Panama, and Argentina contributed 23% of the total number of arrivals with percentages that ranged between 5.5% and 6.0% (Graph B1.3).

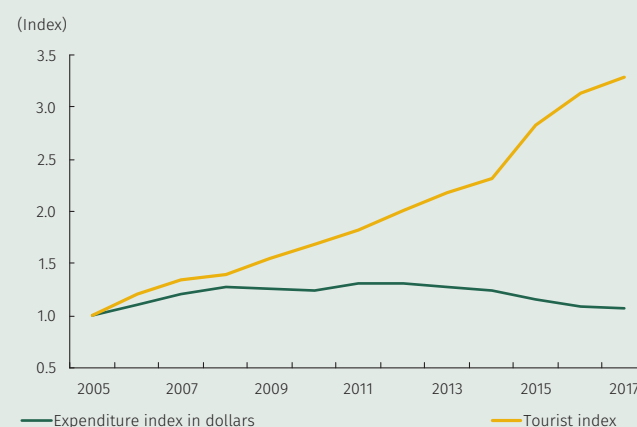
A particular feature of the country's international tourism is the major share that Colombians who reside abroad have in the incoming flow of tourists with those who

Graph B1.2

A. Total Revenue from Travel Exports (air)



B. Index of Spending per Tourist and Number of Tourists



Sources: DIAN (Form 530) and Colombia's balance of payments, estimates by Agudelo et al. (2019)

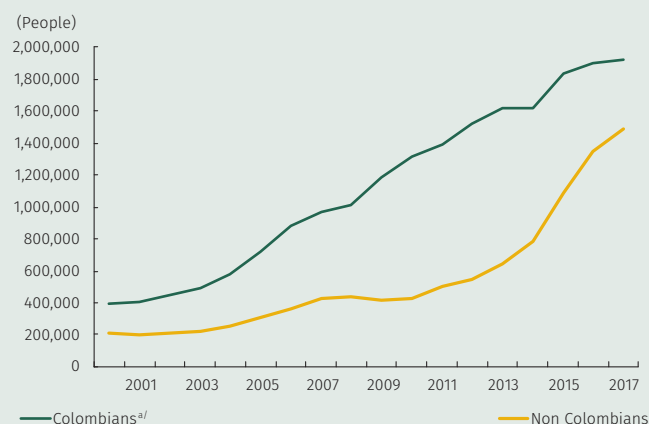
Table B1.1
Average Annual Growth of Travelers by Country and Region of Origin (percentage)

	1994-2003	2004-2017
United States	6.4	9.2
Spain	5.6	6.9
Venezuela	5.2	6.8
Remainder: South America	5.5	15.2
Remainder: Europe	3.3	12.3
Central America	6.6	14.6
Remainder: North America	3.6	13.2
Others	3.8	12.4
Total	5.5	11.4

Sources: DIAN (Form 530) and Aerocivil, estimates by Agudelo et al. (2019)

¹ For each year, the spending index is calculated on the basis of the average expenses (in US dollars) of non-residents as reported on the DIAN Form 530 after statistically evaluating the consistency of the information and purging the database (for instance, atypical data that represent less than 1.0% of the total registered in each period are deleted). The reports used correspond to 67% of the total number of travelers that entered the country through the international airports over thirteen years (2005-2017). This fact and the aforementioned statistical purge ensures the reliability of the spending estimate.

Graph B1.3
Non-resident Tourist Arrivals in Colombia Based on Nationality:
Colombia and non-Colombian



a/ These are people of Colombian nationality residing in another country and visiting Colombia temporarily.

Sources: DIAN (Form 530) and Aerocivil, estimates by Agudelo et al. (2019)

come from the United States, Spain, and some countries in Latin America (Costa Rica, Ecuador, Guatemala, Peru, and Puerto Rico) holding remarkably high rates. However, there has been a notably accelerated growth in incoming foreign tourists during the last five years. Their proportion of the total inflows rose and led to the fact that, currently, approximately three out of every six tourists who visit the country have nationalities other than Colombian. Among the countries that are the main source of travelers, the largest percentages of foreign tourists come from Brazil, Mexico, France, Canada, Switzerland, and Italy.

Thus, the outstanding performance and breakdown of international tourist arrivals indicate that the country is establishing itself as a tourist destination considering that the arrivals are increasingly people from different geographical areas and with nationalities other than Colombian whose trips are not contingent on family ties.

According to the results from Agudelo et al. (2019), the number of international travelers visiting the country is positively dependent on the income level of the economies of their countries of origin, the proximity and commercial activity between Colombia and those countries, the number of Colombians who reside abroad, the perception of Colombia's internal security, and the infrastructure of lodging and accommodation establishments. Agudelo et al. (2019) explain these relationships as described below.

To begin with, the increases in the income levels in the tourists' countries of origin, as measured by the gross domestic product (GDP), have allowed these travelers to consume more tourist goods and services, among which are those offered by Colombia. In other words, higher incomes in the countries of origin have translated into a higher number of tourists entering the country. Another factor that influences the uptrend in these arrivals is the transportation costs associated with the trip: an indirect

indicator of such costs is the proximity of each country to Colombia since, for example, the airfare prices and travel time rise with greater distance. That is why the country's tourism has depended on the arrival of travelers from neighboring and regional countries in addition to those from the United States and Spain.

The volume of bilateral trade and the size of the Colombian population abroad have also been determining factors in the arrival of international travelers. Based on the study previously mentioned, the strengthening of foreign trade has encouraged business trips, while the growing number of Colombians living in other countries has fueled visits of fellow citizens to family and relatives.²

Furthermore, there is evidence of an inverse relationship between the homicide rate (of any type, except those killed in battle) and the flow of international tourists to Colombia. This is based on the fact that an increase in murders has a negative impact on the perception of the country's security thereby creating a greater aversion to tourist services. In line with the above, the significant reduction in armed confrontations since the beginning of the Peace Process negotiations has had a positive effect on the arrival of non-resident tourists in recent years.

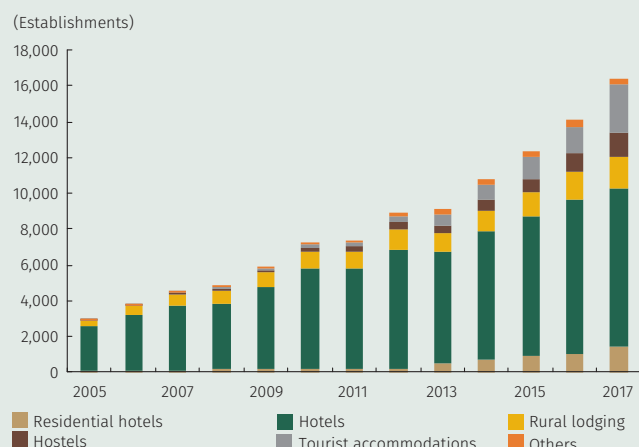
The expansion and improvement in the supply of lodging services have also been determining factors for the growth in the number of international tourists, in particular, those who are not Colombian. Since 2003, the number of hotels has surged due, among other reasons, to the income tax exemption for establishments that build new facilities or remodel and expand existing ones. This benefit was in effect until 2016 when it was replaced by a reduced tax rate.³ In addition, other kinds of lodging establishments such as hostels and tourist accommodation houses have grown significantly in recent years in line with global trends that are redefining the provision of services in this sector, the change in tourists' preferences towards more customized accommodations, and the higher use of digital platforms to rent rooms and apartments (such as Airbnb and Booking) (Graph B1.4).

It should be noted that Agudelo et al. (2019) found that only tourists with nationalities other than Colombian are influenced to go to Colombia by the cheaper prices for tourist services there. As a result, the periods when the Colombian peso depreciates are associated with an increase in the number of foreign travelers since the goods

2 It should be mentioned that the authors of this study used the number of remittances sent to Colombia from each country of origin to estimate the effect of a greater number of Colombians living abroad.

3 In 2002, an income tax exemption for building new hotels was established for a period of thirty years starting with tax year 2003, or for fifteen years in the case of remodeling hotels or expanding their facilities starting on January 1, 2003 (Act 788/2002). However, this exemption was abolished as of 2016. Instead, a 9.0% rate was established for the period over which the income tax exemption was initially granted.

Graph B1.4
Number of Lodgings Registered with the RNT



Note: given that the National Tourist Registry (RNT in Spanish) is used for tax control and collection, its changes are explained by not only the creation of new establishments but also changes in management due to improvements in the ability to collect information. Source: Ministry of Commerce, Industry, and Tourism (RNT).

and services offered within the country become relatively cheaper with respect to those in the countries where the travelers reside. This reaffirms the fact that the motive Colombians living abroad have to travel is not limited exclusively to a demand for tourist services; rather, it is related to their links with the country.

Moreover, Colombia is gaining ground in the region's tourist markets. The rate of expansion in the arrivals of international travelers has surpassed the average for Latin America and, just as in Peru, their number has grown almost six-fold compared to what was registered in 1995, which represents approximately 7.0% of the current population (Table B1.2 and Graph B1.5). However, the number of tourists arriving annually is still low for the region and far from that for Mexico, Brazil, Chile, or Argentina.

Based on the above, the number of tourists entering the country still has room to grow when the large number of potential tourists around the world is taken into account. To achieve this, emphasis will have to be placed, in particular, on improving the country's tourist and transportation infrastructure given that it lags behind in comparison with what other countries in the region have.⁴ In order to take advantage of the diversity of tourist sites available in Colombia, both the hotel facilities, which are still very scarce in some regions, and the means of transportation must be improved. The roads are in poor condition and some airports and bus terminals have problems regarding their capacity (Martinez and Garcia, 2016).

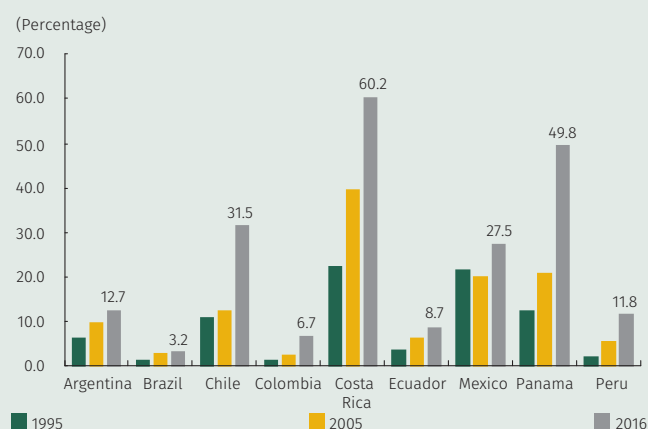
⁴ According to the Global Competitiveness Index of the World Economic Forum (with a scale from 0 to 7), in 2017, the quality of Colombia's airport infrastructure, overland routes, and tourism infrastructure was below the average for Latin America with ratings of 4, 3, and 3.7 respectively while the averages for the region were 4.3, 3.6, and 4.

Table B1.2
International Tourists Entering Some Latin American Countries
(millions of people)

	1995	2005	2016
Mexico	20,2	21,9	35,1
Brazil	2,0	5,4	6,6
Chile	1,5	2,0	5,6
Argentina	2,3	3,8	5,6
Peru	0,5	1,6	3,7
Colombia	0,5	1,0	3,2
Costa Rica	0,8	1,7	2,9
Panama	0,3	0,7	2,0
Ecuador	0,4	0,9	1,4

Sources: Agudelo et al. (2019) and World Bank.

Graph B1.5
International Tourists Compared to the Population of Some Latin American Countries



Sources: Agudelo et al. (2019) and World Bank

The improvement in tourism infrastructure and international advertisement are crucial in the current global context since it is estimated that global passenger flows will continue to show sustained growth rates (WTO, 2017).⁵ This will take place amidst significant changes on a planetary scale⁶ that Colombia could capitalize on in order to consolidate its tourism sector as a generator of foreign currency and driver of economic activity. Therefore, the country's tourist attractions should be adapted to the new preferences of travelers, which include greater participation of

⁵ According to the World Tourism Organization (WTO), the pace of global expansion will be 3.3% between 2010 and 2030 (WTO, 2017), with a faster growth in emerging economies (4.4% compared to 2.2% in advanced economies).

⁶ Defined as "megatrends" by the Organization for Economic Cooperation and Development (OECD).

both the elderly and the generations that use technological platforms to seek out services, and to the global transition toward the reduction of carbon emissions and economies that use their resources efficiently (i.e., services that tourists perceive as sustainable), etc. (OECD, 2018).

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Box 2

Debt in the Colombian Economy: non-financial public sector, non-banking private sector, and households (1995-2018)

1. Introduction

At the end of September 2018, total Colombian debt excluding banks and other financial entities came to 111% of the GDP. The non-financial public sector (NFPS) contributed 51% of the GDP, private companies contributed 37% of the GDP, and households, 20%. *Ecopetrol* S.A., which does its accounting outside of the NFPS, accounts for about 3.0% of GDP. As can be seen in Graph B2.1, the indebtedness of the NFPS and of businesses almost doubled over the last 25 years although this was during different periods. While the greatest expansion of the NFPS debt was the result of the crisis at the end of the 90s, the indebtedness of businesses reached its highest level in the last decade.¹

An increase in debt with respect to the GDP has also been seen in other Latin American countries such as Chile, Mexico, and Peru during this period.² Colombian debt with respect to GDP in 2018 is at a level that is very similar to the Mexican debt which is equivalent to 112% of GDP, above the Peruvian at 93% of GDP, and below the Chilean that came to 170% of GDP. The higher levels of debt as a percentage

of GDP are specific to processes of financial deepening and are part of the development of an economy provided that the creditworthiness of the various debtors is sustainable in the medium and long terms.

The main aspects of the evolution and characteristics of NFPS, private company, *Ecopetrol*, and household debt are described below. The description emphasized the changes in the debt seen in the crisis in the late 1990s, the international financial crisis of 2008, and the period following the external crude oil price shock at the end of 2014.

2. Non-Financial Public Sector Debt

The balance of the NFPS's gross debt³ with a cut-off date at the end of September 2018 (and not including *Ecopetrol*) came to COP 508 t and represented 51.1% of GDP. This balance includes the debt held by the central National Government (CNG), the state-owned companies, and the sub-national governments which stood at 45.9%, 4.0%, and 1.2% of the GDP respectively during the same period. As can be seen in Graph B2.2, the evolution of NFPS debt mainly reflects the changes in the CNG's debt. It should be noted that the reduction in the levels of debt for state-owned companies shown in the debt figures is partly due to the privatization processes and to the exclusion of *Ecopetrol* from the official debt registry since 2008.⁴ The situation in the territorial entities is similar because of the debt limits that were imposed as of the late 1990s.⁵

The CNG debt reflects, in general, the behavior of the fiscal deficit. With the economic crisis in the late 1990s, the debt rose rapidly as it went from 18.8% of GDP in 1998 to 43.7% of GDP in 2002, while the deficit went from 4.5% to 6.5% of GDP between 1998 and 1999 and afterwards declined to levels close to 5.0% of GDP between 2000 and 2002. Within the framework of the agreement signed with the International Monetary Fund (IMF) in 1999, a process of fiscal adjustment that included reforms with regard to taxes and expenditures was started. As a result of these measures and a rise in the international price for crude oil around the middle of the last decade, the CNG deficit and debt were gradually reduced until they stood at 2.7% and 34.3% of GDP, respectively, in 2007. The 2008 international financial crisis temporarily interrupted the fiscal adjustment

1 For this box, the Colombian debt includes NFPS, the non-bank private companies, households, and *Ecopetrol*. In general, the debt includes the obligations of each group or sector including residents and non-residents. The domestic debt includes the loans granted by the national financial system and the issuance of bonds on the local financial market. The foreign debt includes the loans from the international bank, the issuance of bonds on the international financial markets, the loans between related companies through direct investment, and the credit from international providers.

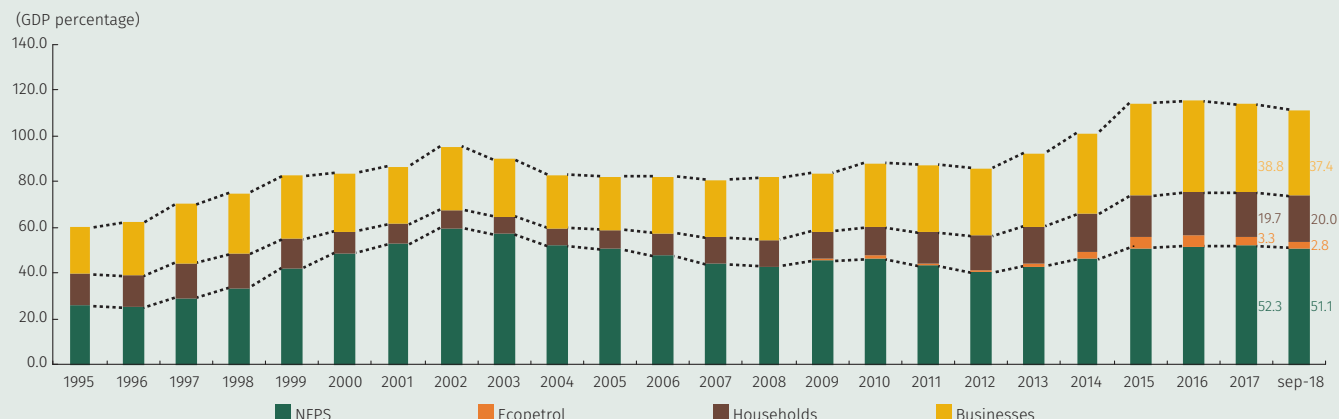
2 Based on information from the World Bank, ECLAC, and some central banks, the total debt between 1995 and 2018 with respect to the GDP for Chile, Mexico, and Peru was estimated to have risen 75, 36, and 14 pp respectively.

3 According to the IMF Government Finance Statistics Manual, gross debt includes the total balance of liabilities held in debt instruments. Net debt, in turn, is defined as the gross debt minus the level of the financial asset balance.

4 During that decade, some banks were privatized, as were *Terpel* (1993), and *ISA* (1996) along with other companies. Subsequently, *Carbocol* and *Telecom* were privatized and the capitalization of *Ecopetrol* was undertaken. According to the Ministry of Finance and Public Credit (MHCP, in Spanish), *Ecopetrol* has not been included in the calculation of the fiscal balance and debt since the first quarter of 2008.

5 Act 358/1997 imposed limits on the amount of debt subnational governments could contract for.

Graph B2.1
Total debt



Sources: Banco de la República and Office of the Financial Superintendent of Colombia.

Graph B2.2
Gross debt of the National Government and Non-financial Public Sector^{a/}



Note: Calculations as a share of the nominal GDP base 2015.

a/ Starting with the first quarter of 2008, the assets of Ecopetrol and Isagen are not included. These entities were removed from the sample starting with this period.

b/ The information for the non-financial public sector is only available as of the cut-off date at the end of September 2018.

Sources: MTPC, ERI and DGPM.

and both the deficit and the balance of the debt rose again in 2009 and 2010 as can be seen in Graph B2.3.

In 2011 and 2012, the deficit and debt recovered a downward trajectory thanks to the rise in the price of oil. However, in 2013, the deficit remained stable but the debt rose, going from 32.5% to 34.9% of GDP, largely because of the issuance of monetary control TES equal to 1.1% of GDP.⁶ Starting in 2014, government revenues suffered from the sudden fall in crude oil prices. As a result, the deficit rose to 4.0% of GDP and the gross debt amounted to 43.7% of GDP in 2016. In order to mitigate the fiscal effects of the decline in the price for crude oil, Congress approved a tax reform in 2014 and another in 2016 which made it possible to restore the

fiscal adjustment process and lower the deficit to a level of 3.6% of GDP in 2017 and 3.1% of GDP in 2018. However, the debt continued to rise due to debt management policies until it stood at 47.7% of GDP in 2018.⁷

As was described above, the gross debt of the CNG usually depends on the performance of the fiscal deficit. Nonetheless, there are other factors that affect it such as, primarily, the rate of economic growth, the real interest rate that is paid on debt, and the movements in the exchange rate. In order to assess the importance of these factors, Graph B2.4 presents the results of an exercise in which the changes in the debt for the 1998-2002 and 2014-2018 periods are broken down. During these periods, economic situations

6 These were issued by the national government in coordination with Banco de la República. The purpose was to sterilize the monetary effect of the Bank's interventions on the foreign exchange market. The resources of these issuances were not part of the general budget of the nation. The issuance of debt amounted to COP 7.9 trillion in 2013 and COP 3.1 trillion in 2014.

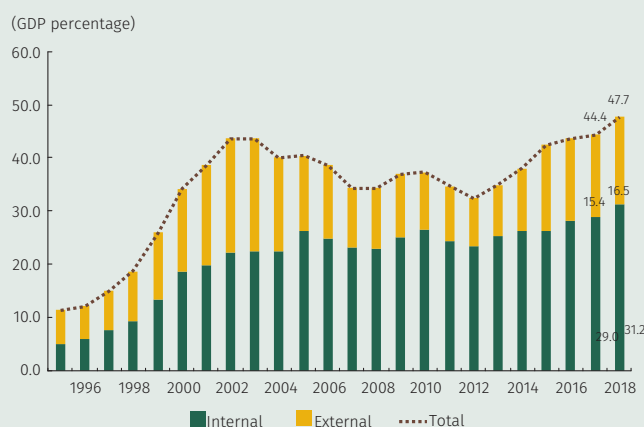
7 In 2018, the national government made the decision to postpone redemption of the maturities programed for that year without reducing the size of the disbursements. This resulted in a rise in the debt balance. The reason for this operation was to use a larger amount of the funds from the general budget for expenses other than servicing the debt.

Graph B2.3
Breakdown of the Gross Debt and Fiscal Deficit: National Government Central

A. Total deficit



B. Gross debt

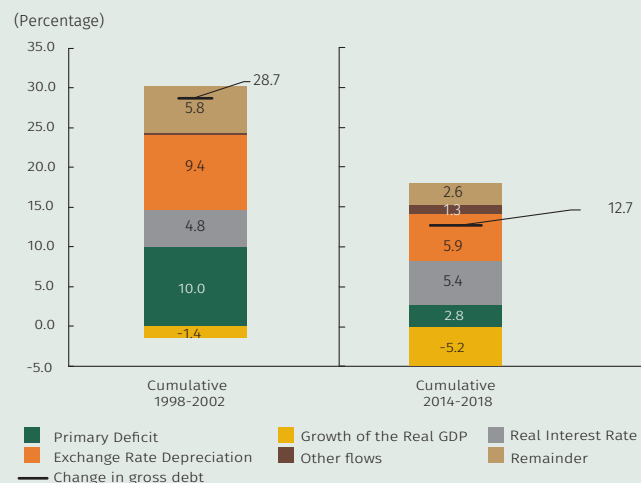


Source: MTPC - DGCPTN and DGPM.

were produced that had a high impact on public finances. As can be seen here, the 28.7% rise in the debt balance during the crisis in the late 1990s is partly explained by the primary deficit and the depreciation of the exchange rate. The recent shock to finances caused by the drop in crude oil prices led to an increase of 12.7% in the debt balance. This was attributed to the rise in the real interest rate, the major depreciation of the exchange rate, and, to a lesser extent, to the primary deficit. The growth of output seen during this period prevented a greater expansion of debt.

Significant changes have been seen in the debt profile over time as much in the components as in the interest rate, the average life, and the type of creditor. With respect to the first characteristic, the fact that at the beginning of the 1990s the major part of the CNG indebtedness was external can be stressed since no internal debt market existed yet. With the later development of this market, there has been a gradual reorganization of the debt in favor of local lending institutions which gave them a 70% share in the total debt balance in 2010. This

Graph B2.4
Breakdown of the Variation in the CNG Gross Debt



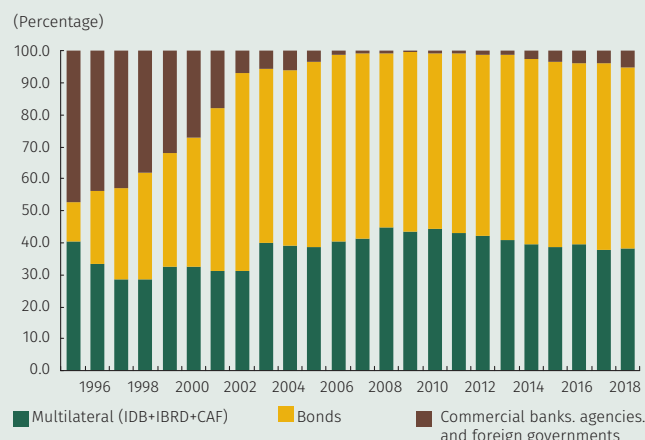
Source: prepared by authors

trend continued for several years although the share of external debt as a proportion of total debt approached 35% as a result of the oil shock in 2014. Regarding the cost of indebtedness, the data indicate that there has been a decline in the domestic and foreign credit rates since the beginning of the previous decade. At present, the average coupon rate is 5.3% for foreign debt and 7.6% for domestic debt. The decrease in the foreign rates is associated with the higher liquidity in the international financial markets since the economic crisis in 2008. With respect to the average life of the debt, the official figures show a significant rise, especially in the foreign component. While the average period for domestic debt went from 4.4 to 6.4 years between 2001 and 2018, the average for foreign debt went from 6.3 to 11.4 years during the same period.

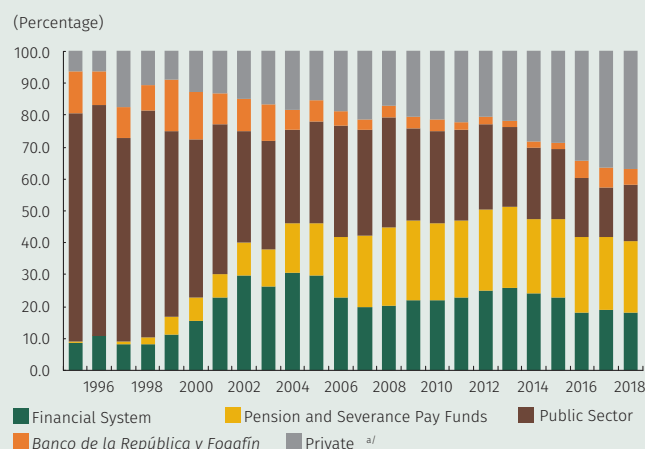
The breakdown of the CNG debt by creditor also presents some important changes over time. In the case of foreign debt, the issuance of bonds replaced loans from sources other than the multilateral bank. Based on Graph B2.5, at the close of 2018, 57% of the total foreign debt is explained by bonds and 38% by the multilateral bank. In the case of domestic loans, which are mainly TES, the public sector, which was the main creditor at the beginning of the 1990s, was replaced by other agents such as commercial banks, pension funds, and other private sector entities. At the close of 2018, these three agents possessed 77% of the total balance.

Graph B2.5
Breakdown of Foreign and Domestic Public Debt by Creditor

A. Foreign debt



B. Domestic debt



Sources: MTPC (DGCPTN) and Banco de la República.

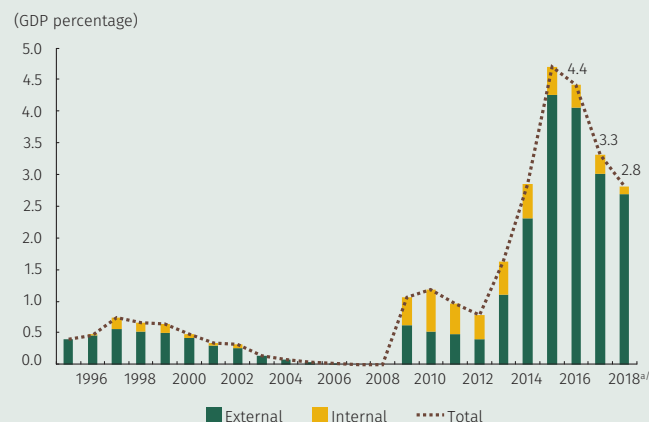
3. Ecopetrol's debt

At the end of September 2018, the balance of *Ecopetrol's* debt stood at 2.8% of the GDP. As can be seen in Graph B2.6, starting in the mid-90s and up until 2007, the company's indebtedness was relatively low. With its capitalization, the investment rises and with it the debt balance, especially starting in 2012 due to the fact that the expansion of the *Refinería de Cartagena* (Reficar) was starting. This process was carried out in the middle of a bonanza of external prices for crude oil. Starting in 2016, the debt gradually decreased partly because of the start-up of the new refinery and the adjustment plan that was implemented as a result of the decline in the international prices for crude oil.

4 Non-Financial Private Sector Debt

As of September, the debt balance of the non-banking private companies came to 37% of GDP. Of this, the domestic debt represented 25% of GDP and the remaining

Graph B2.6
Ecopetrol's debt



a/ Information as of September 2018.
Source: Banco de la República.

12% was foreign debt (Graph B2.7). Moreover, this debt is highly concentrated since 1.0% of the companies account for 78% of it. This group of companies works mainly in the industrial, commerce, transportation and warehousing, and non-banking financial company sectors.⁸

The contracted period for the domestic commercial debt⁹ in effect was 6.6 years, while this indicator stood at 7.6 years for foreign debt. On the other hand, the remainder of the period for the former came to 4.4 years while it was 5.3 for the latter. These indicators presented a reduction of 0.6 and 0.4 years compared to a year ago for domestic debt while for foreign debt, the decrease was 0.3 and 0.1 years respectively.

Between 1995 and 1998, the non-banking private sector debt grew as it went from levels close to 20% of the GDP to 27%, an increase that was caused by the higher contracted foreign debt. This trend was framed by a process of liberalization of the country's current account and financial account. It translated into higher inflows of capital from abroad that caused credit expansion, a strengthening of the peso (in real terms), and an appreciation of non-tradable goods, especially real estate. These factors drove aggregate demand and this was reflected in an almost 4.0% annual average growth of the economy between 1992 and 1997.

Subsequently, the reversal in the capital flows and the drop in the relative prices for non-tradable goods left the financial system exposed between 1998 and 2002. This led to a deterioration in the terms of trade and a

8 These four sectors account for 69% of the debt of this group of companies.

9 Deadlines for domestic commercial credit according to Gamba-Santamaria, et al. (2018). Special report on financial stability: credit risk, second half of 2018. Special Report on Financial Stability, second half of 2018. This does not include bonds for the domestic or for foreign debt.

Graph B2.7
Non-financial private sector debt



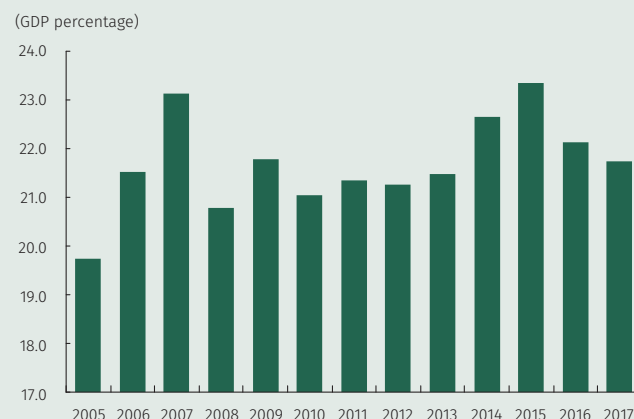
Sources: Banco de la República and Office of the Financial Superintendent of Colombia.

fall in aggregate demand.¹⁰ In this context, there was a reduction in the inflow of foreign capital which negatively affected the growth in the availability of domestic and foreign credit and, therefore, the access and level of corporate debt. Furthermore, the depreciation of Colombian currency, which was induced by this event, caused a peso-denominated increase in the dollar-denominated debt, which is why the external debt rose as a share of the GDP during those years in spite of the fact that its dollar amount declined.

After this crisis, the non-banking private sector debt showed a growth trend and rose as a share of the GDP as it went from 24% to 28% between 2001 and 2008. This growth occurred in a context in which the country experienced an economic recovery spurred by the prices for crude oil and the growth of aggregate demand that fostered an increase in investment (Graph B2.9). Note that the companies financed their production expansion projects mainly by contracting debt with local banks. This debt went from 12% of the GDP in 2002 to 21% in 2008. In addition, the higher revenue from abroad caused an appreciation of the peso which had an effect on the external debt to GDP indicator in current dollars. This indicator went from 16% to 6.0% between 2002 and 2007. Note that during this period, the dollar-balance of this debt decreased by around 5.0%.

The 2008-2009 international financial crisis had a transitory effect on the Colombian economy in that the debt in this sector contracted by 2 pp of the GDP as it went from 28% to 26%. During the years after that crisis, the debt showed its sharpest increase for the entire period under analysis as it went from 28% of the GDP in 2010 to 40%

Graph B2.8
Colombia's Gross Fixed Capital Formation



Source: DANE (national accounts), preparation by authors

in 2015. The abundance of liquidity that resulted from the expansionary monetary policies adopted by the developed economies in the North Atlantic¹¹ increased the availability of international credit and the country's capital inflows. These elements, added to the rise in the price for oil, had an influence on the increase in the availability of domestic credit and the decline in interest rates. This situation encouraged an expansion of Colombian companies' productive capacity financed by this debt, which was made evident in the 2.35 pp rise in gross fixed capital formation as a share of the GDP¹² (2010-2015; Graph B2.8) and an increase in foreign assets held by these companies.¹³

10 Explanations for and consequences of this situation can be found at: Villar, Salamanca and Murcia (2005); Arias, Carrasquilla and Galindo (2002); Carrasquilla, Galindo, and Vásquez (2000); Echeverry, and Salazar (1999); etc.

11 The United States, Canada, and Western Europe.

12 Both figures in nominal terms.

13 The Colombian companies used this larger debt to finance international expansion programs in the insurance, retail trade, cement, and food and beverage sectors.

Finally, from 2015 to 2018, the debt of non-banking private companies fell 3.0% of the GDP when it stood at 37%. During this period, there was a sharp drop in the prices for crude oil and the normalization of monetary policy began in the United States. These two situations occurred in late 2014 and in 2015. The rapid deterioration in the country's terms of trade and the gradual withdrawal of the monetary stimulus were reflected in the decline in foreign capital inflows, the rise in international interest rates, and the sharp rebound in the price of the US dollar, which caused the peso-denominated rise in the dollar-denominated debt. These events caused a fall in aggregate demand that were translated into investment declining as a share of GDP to levels that were close to those in 2010.

5 Household Debt

As of September 2018, household debt came to 20% of GDP. Of this percentage, mortgages represent 6.0%, and consumer loans 14% of GDP (Graph B2.9). This debt has shown changes that reflect the relevance of each of its components in the total. For example, mortgage debt was the most important one in total household liabilities between 1995 and 2002, but it lost relevance as a result of the mortgage crisis in the late 1990s, a fact that contrasts with the continuous increase in consumer loans in the total balance since 2004. The change in these components is described below.

5.1 Mortgage Debt

After the growth registered in the 1990s, mortgage debt showed a declining trend. From 1999 to 2004, this type of debt fell as a share of GDP as it went from 9.0% to 3.0% and remained at this level until 2009. After this period, this

figure went through a sustained growth until it came to 6.0% in 2018.

The drop in household mortgage debt during the first few years of the 21st century occurred at the same time as the recession of 1999.¹⁴ Its effect on the mortgage market continued to be felt for some time after that crisis had been overcome and was reflected in the sluggishness of that type of debt between 2004 and 2009.

Starting in 2010, there was a recovery in mortgage loans. This phenomenon was due to factors such as: 1) greater confidence in this type of loan; 2) availability of financing in pesos; 3) longer debt repayment deadlines (exceeding 15 years); 4) a new leasing method for housing; and 5) government subsidy programs for the purchase of new housing that even covered the middle class (subsidy for the interest rate). The crude oil price shock that occurred in mid-2014 did not stop the growth of this debt.

5.2 Consumer Credit

Just like mortgage debt, household consumer loans were also affected by the crisis in 1999 (this went from representing 7.0% of GDP in 1995 to 3.0% in 2000). Nevertheless, unlike the former, consumer debt stopped falling within a few years and since 2003, it has registered continuous growth and gone from 4.0% of the GDP that year to 14% in September 2018. The result of this was that, starting in 2004, consumer loans grew to become the largest

14 For further explanation about that situation see Cardenas, (2003), ANIF (2011), Banco de la República (1999), and Restrepo (1999).

Graph B2.9
Household debt



Sources: Banco de la República and Office of the Financial Superintendent of Colombia.

component of household debt¹⁵ when, in 2018, they represented almost 70% of it.

The continuous growth of consumer loans since 2003 has occurred in a context based on two facts: greater financial deepening and the expansion of the Colombian economy. The first fact is reflected in the broader availability for consumer loans,¹⁶ the relaxation of domestic lending conditions due to the rise in international liquidity during the 2010-2014 period, and the resulting decrease in the interest rate. The country's dynamic economy, in turn, is revealed in the greater purchasing power and the reduction of unemployment.

6. Conclusions

The growth and level of the country's debt analyzed here arises from a systematic process of greater financial deepening and an increase in the levels of investment, production, and employment in general. The debt has gone from 75% to 111% of GDP in the last twenty years. This performance was accompanied by a real GDP growth of around 90% and 50% in per capita terms as well as lower rates of unemployment. Likewise, investment acquired a larger share of the aggregate demand and raised the leverage needs. In the last ten years, most of the growth of this indicator was fueled by the larger private sector debt.

The economic crisis in the late 1990s led to a substantial increase in the levels of public debt, especially in the case of the CNG. The fiscal adjustment process after the crisis and the bonanza in oil prices reversed the growth trend of the government debt and gradually reduced its balance, which stood at 32.5% of the GDP in 2012. However, the recent crude oil price shock once again led to an increase in public debt which, for the CNG, came to 47.6% of the GDP in late 2018. Hence the need to maintain the fiscal adjustment process to contain the growth trend of public debt.

The non-banking private sector debt, in turn, is at levels that are higher than those registered during the years prior to the Colombian economic crisis at the end of the 20th century. However, this level and its development so far this century are in line with the performance of investment. Given that a larger investment generates a faster accumulation of productive capital, the growth of the debt in this

sector allows for greater potential growth. To the extent that the debt the companies have is related to their investment, a higher level of it does not represent a macro-economic vulnerability.

Last of all, the growth of household indebtedness that has been seen since the beginning of this decade has not meant a major financial burden since it has been accompanied by a reduction in the interest rates and increases in the periods in effect in the consumer and housing loan portfolios.¹⁷ This greater indebtedness is also part of the financial deepening and inclusion that the country is going through.

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15 Four percent of the GDP versus 3.0% mortgage.

16 The larger number of households with consumer loans is evident in studies which show that the percentage of adults with access to any financial system product went from 51% in 2006 to 76% in 2016 (reports on financial inclusion from the Office of the Financial Superintendent of Colombia and Banca de las Oportunidades [Bank of Opportunities]). Furthermore, the number of payments made by credit cards grew at an annual average rate of 13.7% during the same period (Banco de la República, Payment Systems Report, Bogotá, June 2016).

17 Banco de la República, Financial Stability Report, second half of 2018.

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03

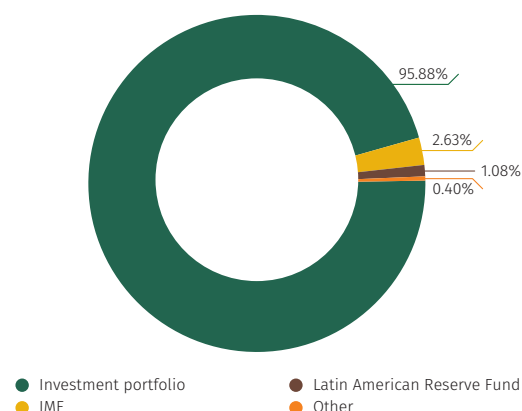
International Reserves

As of December 2018, the net international reserves totaled USD 48,392,04 b, which is USD 763.9 m higher than the balance registered in December 2017. The increase in the dollar balance of the international reserves is primarily due to the purchase of foreign currency on the foreign exchange market and to the profitability of the international reserves.

Banco de la República manages the country's international reserves within a rigid framework of risk control emphasizing the measures geared towards 1) the management of market risk so that the value of the investments is not significantly affected by changes in the international interest rates; 2) the management of credit risk in order to have a very low probability of facing defaults on payments; and 3) the management of liquidity risk in order to be able to convert the reserve assets into cash quickly and at low cost. Through these risk control measures, an effort is made to keep reserves at a high level of security and liquidity. This, in turn, is associated with lower profitability since the safest investments are also those that have the lowest returns. The main management policies for Colombia's international reserves and their current breakdown are explained in this chapter. As of December 2018, the net international reserves totaled USD 48,392.9 b, which is USD 763.9 m higher than the balance registered in December 2017.⁵⁸ The increase in the US dollar balance of the international reserves over the course of that year was primarily due to the purchase of foreign currency on the foreign exchange market (USD 400.3 m), and the profitability of the international reserves. The

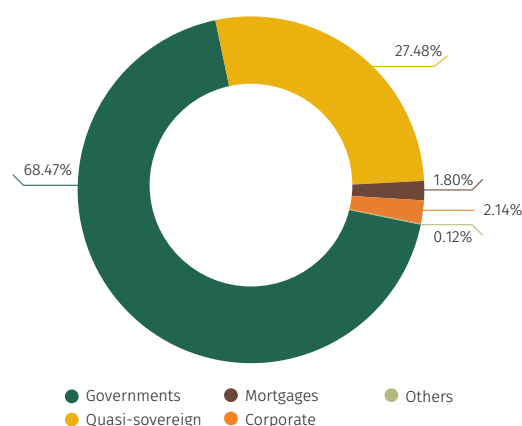
⁵⁸ The net international reserves are equal to the total international reserves, or gross reserves, minus *Banco de la República's* short-term foreign liabilities. The latter consist of demand obligations to non-resident agents in foreign currency. The gross international reserves came to USD 48,401,5 b and the short-term foreign liabilities added up to USD 8.6 m.

Graph 3.1
Breakdown of the International Reserves
(information as of Monday, December 31, 2018)



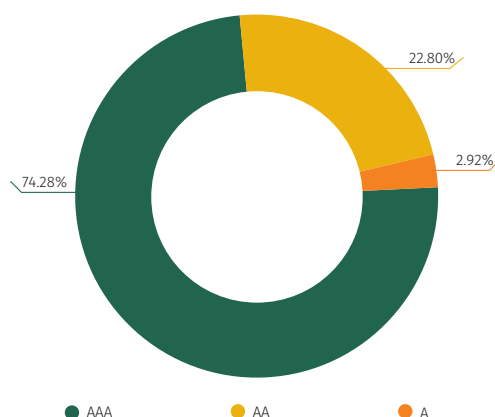
Note: gold is included in the investment portfolio. The item "Others" includes international agreements, cash on hand, and demand deposits.
Source: Banco de la República.

Graph 3.2
Components of Investment Portfolio by Sector
(information as of Monday, December 31, 2018)



Source: Banco de la República.

Graph 3.3
Distribution of Investment Based on Credit Rating
(information as of Monday, December 31, 2018)



Source: Banco de la República.

return on the international reserves at the close of 2018, excluding the foreign exchange component, was 1.66%. The most important factor for explaining this yield is the accrual of interest from the instruments in which the investment was made. This has risen as a result of the gradual increase in interest rates by the United States Federal Reserve.

The main component of the international reserves is the investment portfolio which corresponds to investments in financial instruments on the international market and to the certified physical gold (94.79% and 1.09% of the reserves, respectively). The breakdown of the international reserves is presented in Graph 3.1.

3.1 Breakdown of the Investment Portfolio⁵⁹

An explanation of the policies that guide the investments of the investment portfolio and some relevant definitions are provided in the Appendix. The breakdown of the investment portfolio as of December 2018 can be seen in Graph 3.2, when about 96% of it was invested in paper issued by governments, entities related to governments (quasi-sovereign) and repurchase agreements with the Federal Reserve.

Graph 3.3 shows the credit rating of the investment portfolio. The Bank uses the lowest rating granted by at least two of the three main rating agencies (S&P, Moody's, and Fitch Ratings) as a benchmark. Evidence of the high credit rating of the assets in which the portfolio invests can be seen in that 74.3% of it is invested in instruments with AAA ratings and 22.8% is in instruments rated AA.

Finally, Graph 3.4 shows the foreign exchange components of the investment portfolio as of Monday 31 December 2018. The largest share of Colombia's international reserves is in US dollars due to the fact that a majority of the country's commercial and financial transactions

⁵⁹ The graphs in this section were calculated based on the amount in the investment portfolio excluding the gold.

with the rest of the world are carried out in this currency. Investment in the following currencies is also allowed: Canadian, Australian, and New Zealand dollars; Swedish krona; the pound sterling; Swiss franc; euros; yen; Norwegian krone; the renminbi; Hong Kong and Singapore dollars, and Korean won.⁶⁰ All of these currencies are characterized by high daily trading volumes and belonging to countries that are characterized by having governments with high credit ratings.

3.2 Profitability of the Reserves

The decision to have a portfolio with a conservative risk profile implies receiving a lower return.

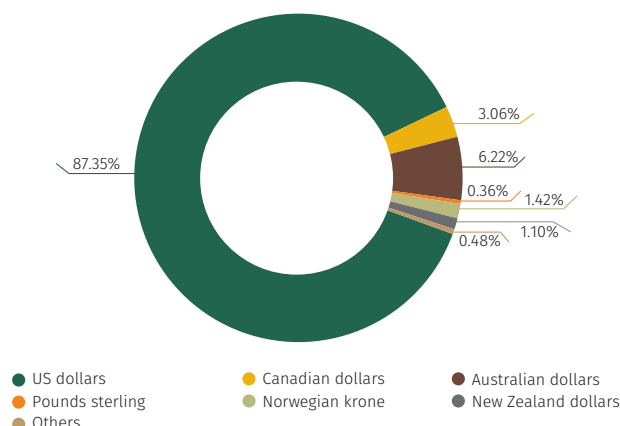
The basic financial theory for portfolio management indicates that, if an investor wants to face a lower risk, their expected profitability will be lower.

The profitability of the reserves depends primarily on two factors: first, the interest received from the instruments invested in (interest factor), and second, the change in the prices of the securities because of movements in the interest rate (appreciation factor). The second factor occurs because there is an inverse relationship between bond prices and interest rates; that is to say, the price of the bonds declines as the interest rates increase and vice versa.

As can be seen in Graph 3.5, the rate of return on the international reserves has been rising gradually since 2013. Between 2009 and 2015, this profitability remained low due to the expansionary monetary policy implemented by the central banks of the developed countries in response to the global financial crisis, which triggered very low interest rates. However, the Fed has been gradually raising its monetary policy rate since 2015, which has made it possible for the new investments to get higher rates (interest factor).

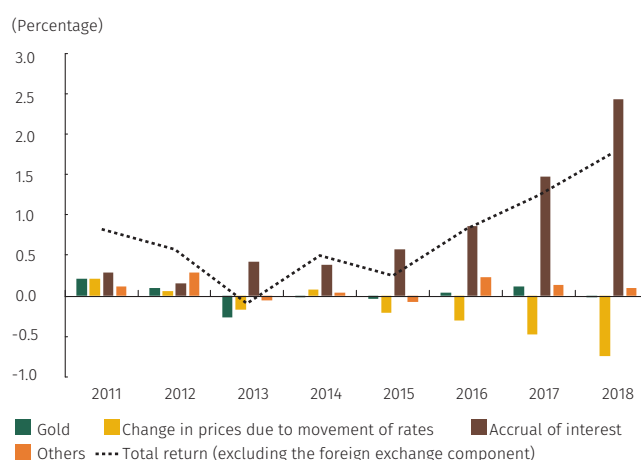
During 2018, the profitability of the reserves, excluding the foreign exchange component, was

Graph 3.4
Currency Components of the Investment Portfolio
(information as of Monday, December 31, 2018)



Source: Banco de la República.

Graph 3.5
Historical Profitability of International Reserves by Components



Source: Banco de la República.

⁶⁰ The euro has a very small share in the international reserves investment portfolio due to the fact that it is not part of the group of currencies that the benchmark index is made up of. The reason why it is not in this group is because both the benchmark interest rate of the European ECB and the rates for the main short-term sovereign bonds issued in euros are negative.

1.66%⁶¹ (USD 797.8 m). During this period, just as in the last few years, the gradual rise in the interest rates has produced an increase in the generation of portfolio interest (interest factor). In addition, the reserve portfolio appreciated towards the end of the year due to the fall in interest rates, which offset the movement seen during the previous months (appreciation factor). This movement occurred because of lower expectations of future increases in the rates on the part of the Fed due to signs of an economic slowdown in the United States and lower inflation expectations.

61 This rate is obtained by dividing the return in dollars by the average value of the net reserves on Sunday, December 31, 2017 and Monday, December 31, 2018. Since 2015, the impact of the exchange rate effect on the profitability of the reserves has been excluded.

04

Financial Situation of *Banco de la República*

In 2018, mainly because of the higher profitability of the international reserves, *Banco de la República* exhibited better results than in 2017.

The rise in *Banco de la República*'s assets was matched by an increase in the equity as a result of the depreciation of the peso. The above had a significant effect on the peso balance of the international reserves in the asset column and in the adjustment of changes in equity. The profit from the 2018 accounting period, in turn, was higher than the one in 2017 mainly due to the greater profitability of the international reserves.

4.1 Financial Position of *Banco de la República* (balance sheet)

4.1.1 Assets

The assets of *Banco de la República* registered a balance of COP 187.201 t at the close of December 2018.⁶² This figure is COP 15.464 t (9.0%) higher than the

⁶² In this section, the line items are shown by economic rather than by accounting criteria. With respect to the financial statements presented to the Office of the Financial Superintendent of Colombia and the National General Accounting Office, the differences are: first, the value of the liabilities associated with purchase transactions for the international reserves portfolio for which payment has not yet been made is discounted from the assets (this is registered as a higher value of the asset in the Bank's financial statements and as a requirement of the international reserves under liabilities); second, the coins in circulation, which are not part of the accounting information on the Bank's balance sheet, are included in the assets and liabilities in this section; third, accrued interest, which is classified in other assets, is not included in the repo transaction balance, the interest-bearing deposits not constituting reserve requirements (DRNCE), or the national government's deposits and fourth, other reclassifications of lower value accounts. In this respect, the value of the asset presented in this Report (COP 187.201 t) differs from what was registered on the December 31, 2018 financial statements (COP 190.904 t), and the value of the liabilities (COP 117.557 t) differs from what was registered on the financial statements as of December 31, 2018 (COP 121.259 t).

As of December 2018, the assets registered a balance of COP 187.201 t, which was COP 15.464 t (9%) higher than the balance seen in December 2017.

balance seen in December 2017. The main items that explain the increase in the assets are the following:

- i. Gross International Reserves: at the close of December 2018, the balance, valued at market prices was COP 157.293 t (USD 48.401 b),⁶³ which is COP 15.144 t (10.7%) higher than the data seen December 31, 2017. The rise is mainly explained by the COP 10.923 t positive variation in the exchange adjustment caused by the higher peso to other reserve currency exchange rate, the COP 2.488 t return on the international reserves, and the purchase of COP 1.279 t (USD 400.3 m) in foreign currency through put options to accumulate international reserves.⁶⁴
- ii. Repo transactions used to provide transitory liquidity:⁶⁵ these presented a balance of COP 9.128 t which was a COP 4.954 t (118.7%) increase with respect to the close of 2017.

This was partially offset by:

- i. National currency investment portfolio: valued at market prices, its balance was COP 6.827 t, which is COP 4.688 t lower with respect to December 31, 2017 (-40.7%). This is a result of: 1) net sales of COP 4.319 t in TES on the part of *Banco de la República*⁶⁶ and 2) COP 936 b in coupon maturities and principle. The above was offset, in part, by the COP 567 b valuation of this portfolio at market prices.
- ii. Contributions to international entities and organizations: the balance came to COP 9.232 t which is COP 218 b lower than what had been registered at the close of 2017 (-2.3%). This reduction was caused mainly by the lower contributions to the IMF in national currency (COP 217 b) to offset the increase in the reserve position through the purchase of 52.5 million in special drawing rights (SDR) in June 2018. In addition, a negative valuation was presented due to the new parity of the SDR with the IMF (-COP 144 b). The above was partially offset by the positive adjustment of the exchange rate due to the depreciation of the peso with respect to the dollar (COP 145 b).

63 See previous note.

64 See chapter 3 in this report.

65 See Note 62.

66 Net sales are explained by: a) sales of COP 5.054 t to the Ministry of Finance and Public Credit in October (<http://www.banrep.gov.co/es/noticias/operation-sale-of-tes-al-ministry-de-hacienda-05-10-2018>), and b) final purchase of COP 735 b in TES on the market during June and July.

Table 4.1
Financial Position of Banco de la República Classified by Economic Criteria
(billions of pesos)

Accounts	December 2017		December 2018		Change	
	Balance	Percentage share	Balance	Percentage share	Absolute	Percentage
Assets	171,737	100.0	187,201	100.0	15,464	9.0
Gross International Reserves	142,149	82.8	157,293	84.0	15,144	10.7
Contributions to international entities and organizations	9,450	5.5	9,232	4.9	-218	-2.3
Investments	11,515	6.7	6,827	3.6	-4,688	-40.7
Resale agreements: transitory liquidity support	4,174	2.4	9,128	4.9	4,954	118.7
Other net assets	4,450	2.6	4,721	2.5	271	
Liabilities and equity	171,737	100.0	187,201	100.0	15,464	9.0
Liabilities	114,343	66.6	117,557	62.8	3,214	2.8
Foreign-currency liabilities that affect international reserves	24	0.0	23	0.0	-1	-5.6
Monetary Base	88,811	51.7	98,081	52.4	9,270	10.4
Cash	59,498	34.6	64,378	34.4	4,880	8.2
Reserve	29,313	17.1	33,703	18.0	4,390	15.0
interest-bearing deposits not constituting reserve requirements	278	0.2	68	0.0	-210	-75.5
Other deposits	108	0.1	59	0.0	-49	-45.1
National Government: N/C DGCPTN	13,666	8.0	8,033	4.3	-5,634	-41.2
National Government: F/C DGCPTN	323	0.2	312	0.2	-11	-3.4
Obligations with international organizations	11,131	6.5	10,980	5.9	-151	-1.4
Total equity	57,394	33.4	69,645	37.2	12,251	21.3
Capital	13	0.0	13	0.0	0	0.0
Surplus	57,285	33.4	68,249	36.5	10,964	19.1
Special foreign-exchange account settlement	521	0.3	521	0.3	0	0.0
Foreign exchange adjustment	56,523	32.9	67,446	36.0	10,923	19.3
Investment in assets for cultural activities and donations	241	0.1	283	0.2	42	17.2
Other overall results	-584	-0.3	-224	-0.1	361	-61.7
Fiscal year result	804	0.5	2,241	1.2	1,437	178.7
Cumulative results: effect of change in accounting policies	0	0.0	-512	-0.3	-512	n. a.
Accumulated Results Process of Convergence with IFRS	-123	-0.1	-123	-0.1	0	0.0

Note: In this table, the line items are shown by economic and not accounting criteria. With respect to the financial statements presented to the Office of the Financial Superintendent of Colombia and the National General Accounting Office, the differences are: first, the value of the liabilities associated with purchase transactions for the international reserves portfolio for which payment has not yet been made is discounted from the assets (this is registered as a higher value of the asset in the Bank's financial statements and as a requirement of the international reserves under liabilities); second, the coins in circulation, which are not part of the accounting information on the Bank's balance sheet, are included in the assets and liabilities in this section; third, the balance of the repo transactions does not include accrued interest, which are classified in other assets; In this respect, the value of the asset presented in this Report (COP 187,201 t) differs from what was registered on the December 31, 2018 financial statements (COP 190,904 t), and the value of the liabilities (COP 117,557 t) differs from what was registered on the financial statements as of December 31, 2018 (COP 121,259 t).

Source: Banco de la República.

4.1.2 Liabilities

At the close of December 2018, the balance of the liabilities was COP 117,557 t⁶⁷ which was COP 3,214 t (2.8%) higher than what was registered at the end of 2017 (Table 4.1). This rise was mainly due to:

- i. Monetary base: the balance for this stood at COP 98,081 t which was COP 9,270 t (10.4%) higher than what had been registered at the close of the previous year. By component, the cash in circulation showed an increase of COP 4,880 t (8.2%) while the bank reserves rose COP 4,390 t (15.0%).

The above was offset, in part, by:

- i. The national government's deposits in pesos, set up through the General Office of Public Credit and the National Treasury at *Banco de la República*: its balance was COP 8,033 t at the close of December 2018 which is COP 5,634 t (-41.2%) lower than what was registered in December 2017.⁶⁸
- ii. The interest-bearing deposits not constituting reserve requirements (DRNCE) showed a balance of COP 68 b at the close of 2018 which was COP 210 b (-75.5%) lower than what was presented in December 2017.
- iii. Obligations to international organizations: the balance was COP 10,980 t, which is COP 151 b (-1.4%) lower than what was presented at the close of 2017. In this case, the change is due to the offsetting decrease in the asset account, "contributions to international organizations and entities."

4.1.3 Equity

At the close of December 2018, there was an equity balance of COP 69,645 t, which was COP 12,251 t (21.3%) higher with respect to the figure for December 2017 (Table 4.1). This is mainly due to the COP 10,923 t (19.3%) increase in the currency exchange adjustment account that was the counterpart to the peso increase in the gross international reserves that resulted from the depreciation of peso with respect to the reserve currencies. Furthermore, the profits transferred to the national government from the 2017 earnings were COP 761 b, and the profit from the Bank's accounting period for 2018 was a positive COP 2,241 t.

At the close of December 2018, the liability balance was COP 117,557 t, which is COP 3,214 t (3%) higher than what was registered at the end of 2017.

As of December 2018, equity had a balance of COP 69,645 t, which was COP 12,250 t (21%) higher with respect to the figure seen in December 2017.

⁶⁷ See Note 62.

⁶⁸ Ibid.

In 2018, Banco de la República's profit for the accounting period was COP 2.241 t.

4.2 Income Statement (L&P)

4.2.1 Close of 2018

In 2018, *Banco de la República* registered a profit for the accounting period of COP 2.241 t, the result of COP 4.054 t in income and COP 1.813 t in expenditures (Table 4.2). Compared to the previous year, the income presented a COP 724 b (21.8%) increase and the outlays, a COP 713 b (-28.2%) decrease.

The revenue seen in 2018 is mainly explained by the return on the international reserves, the portfolio of Treasury bond investments (TES), and liquidity transactions through expansion repos. The best income from international reserves came during the last two months of the year and, especially, in December. This was due to the effect of the reduction of the rates on bonds in foreign currency during this period. This caused the assets that the international reserves portfolio is made up of to appreciate.⁶⁹

The lower outflows, in turn, are explained, specifically, by the lower interest paid on the national government's deposits at *Banco de la República* as a result of the reduction in the policy interest rate on the part of the Board of Directors⁷⁰ and the lower average value of the deposits.

Income presented an annual COP 724 b (21.8%) increase, and the outlays, an annual COP 713 b (-28.2%) decrease.

The reduction in the policy interest rate during 2018 had a net positive effect on the Bank's L&P because, even though it generates a lower income from the primary liquidity expansion transactions through expansion repo transactions, the reduction in the remuneration for the government deposits at the Bank is greater since their average volume was higher than the average balance of these repos.

The items that had the greatest influence on the income statement in 2018 are explained below:

- i. The increase from the yield of the international reserves is the result of: 1) the return on the international reserves portfolio (COP 2.474 t, USD 797 m with an annual profitability of 1.67% in US dollars in 2018) the result of income from the accrual of interest (COP 2.066 t; i.e., USD 696 m) and the appreciation of the international reserves portfolio (COP 408 b, USD 101 m); 2) the return on contributions to international entities, on commissions from the Latin American Integration Association (Aladi) agreement, and others (COP 24 b, USD 8 m); and 3) the devaluation of monetary gold (-COP 10 b, -USD 8 m), arising from the

⁶⁹ See Chapter 3 of this Report.

⁷⁰ The policy interest rate went from 4.75% in December 2017 to 4.50% at the end of January 2018 and to 4.25% on April 30, 2018.

Table 4.2
Income Statement for 2018, *Banco de la República*
(billions of pesos)

	Implemented:		Annual changes	
	2017	2018	Percentage	Absolute
I. Total Income (A+B+C)	3,330	4,054	21.8	724
A. Monetary income	2,866	3,659	27.7	793
1. Interest and returns	2,836	3,505	23.6	669
International Reserves		2,488	56.7	900
Monetary Regulation Investment Portfolio (TES)		788	-13.1	-119
Active Monetary Regulation Operations (Repos)	340	228	-32.9	-112
Other operations		0	108.8	0
2. Foreign exchange differences	27	147	451.5	120
3. Other monetary income	4	8	112.1	4
B. Face value of the coins issued	266	172	-35.4	-94
C. Corporate income	198	224	12.8	25
1. Commissions:	172	184	7.2	12
Banking services	69	72	4.5	3
Fiduciary operations		112	9.0	9
2. Other corporate income	27	39	48.7	13
II. Total expenditures	2,526	1,813	-28.2	-713
A. Monetary expenditures	1,688	1,017	-39.7	-671
1. Interest and returns	1,362	856	-37.1	-505
Remunerated deposits: General Office of Public Credit and the National Treasury			-37.3	-505
Liability Transaction Deposits for Monetary Regulation	6	6	-8.8	-1
2. Costs of Management and Management of Funds Abroad	44	33	-25.5	-11
3. Commitment fee for IMF flexible credit	86	83	-4.1	-4
4. Foreign exchange differences	1	44	2989.7	43
5. Other monetary expenditures	194	1	-99.4	-193
B. Banknotes and coins	208	213	2.5	5
C. Corporate expenditures	548	594	8.4	46
1. Personnel costs	361	390	7.8	28
2. Overhead	105	111	6.0	6
3. Other Corporate	82	93	14.4	12
D. Pension payments	81	-12	-114.7	-93
III. Operating results (I - II)	804	2,241	178.7	1437

Note: cultural expenses, scholarships to students other than employees, and expenditures on technology projects that were included in other corporate expenses are presented in overhead
Source: *Banco de la República*.

decline in the international price for gold in December 2018 compared to December 2017 (-1.1%) (Graph 4.1 and Table 4.3).

- ii. The income from the returns on the TES monetary regulation investment portfolio came to COP 788 b compared to the COP 908 b in 2017.⁷¹ The TES portfolio held by the Bank declined COP 4.688 t as it went from COP 11.515 t in December 2017 to COP 6.827 t in December 2018. The above was the result of COP 5.054 t in sales, COP 735 b in purchases, COP 936 b in maturities, and COP 567 b in valuation at market prices. As a result of TES sales, COP 76 b was transferred from the other comprehensive income (OCI) equity account to the income statement for market fluctuations that have occurred and which raised the yield on TES held by *Banco de la República* during the year.
- iii. The income from liquidity transactions through expansion repos came to COP 228 b which was COP 112 b lower compared to 2017 and the result of the lower rate of remuneration due to the reduction in the policy interest rate on the part of the Board of Directors of *Banco de la República* and the lower average daily volume of these transactions.⁷²
- iv. The placement of coins into circulation (face value of the coins issued) generated COP 172 b in revenue, which is COP 94 b (-35.4%) lower than what had been seen in 2017.
- v. The income received from commissions for banking services and fiduciary operations came to COP 184 b, which is COP 12

Graph 4.1
International Price of Gold



Table 4.3
Return on International Reserve Investments
(billions of pesos)

	2017	2018
International Reserves	1,588	2,488
Portfolio	1,476	2,474
International Entities, Aladi agreement, etc.	28	24
Gold	84	-10

Source: Banco de la República.

71 However, the total return on the TES portfolio held by the Bank cannot be compared to the yield in 2017 due to the adoption of the new version of IFRS 9. In this version, its classification was changed from the “reasonable value under changes in results” category that had been in effect up to December 31, 2017, to “reasonable value under changes in other overall results” category starting January 1, 2018.

72 The average daily volume was COP 5.368 t in 2018 compared to COP 5.921 t in 2017. The average rate of remuneration seen in 2018 was a real annual (r.a.) 4.34% and an r.a. of 5.91% in 2017.

b (7.2%) higher than the amount received in 2017. The increase is primarily explained by the earnings from the fiduciary operations which presented a growth of COP 9 b (9.0%) mainly because of the remuneration from TES management.

- vi. The net result between inflows and outflows caused by changes in the peso to US dollar exchange rate⁷³ for the assets and liabilities in foreign currencies other than the international reserves (exchange rate differences) was positive, coming to COP 102 b (COP 147 b in income and COP 44 b in expenses). This result is explained by: 1) COP 145.6 b in income from contributions to international organizations as well as COP 0.9 b in other assets, and 2) COP 23 b in outflows from deposit accounts, COP 18 b from contribution obligations to international organizations and entities, and COP 3 b in other liabilities.

Regarding expenditures, the following stands out:

- i. The expenditure for paying interest on the national government's deposits was COP 850 b which was COP 505 b (-37.3%) lower in comparison to what had been registered the previous year and resulted from the lower average daily volume for these deposits and the lower interest rate paid compared to 2017.⁷⁴
- ii. The costs of issuing and distributing the monetary species was COP 213 b and registered a COP 5 b (2.5%) growth compared to 2017 that was mainly the result of the demand for banknotes.
- iii. The interest paid on the deposits for monetary-regulation liability transactions (DRNCE) came to COP 6 b, which was COP 1 b (-8.8%) lower than what had been registered in 2017.⁷⁵
- iv. The corporate outlays stood at COP 594 b with an annual increase of COP 46 b (8.4% which is equivalent to 5.0% in real terms)⁷⁶ as a result of:
 - a. Personnel costs, COP 390 b, increased 7.8% per year (4.4% in real terms).⁷⁷ These expenditures included salaries and benefits; contributions to social security; medical services; financial aid and formal training; contributions to family compensation funds, ICBF and SENA; continuing education; per diem; etc.

73 The peso depreciated 8.9% in December 2018 compared to the close of 2017.

74 The average daily balance of these deposits in *Banco de la República* was COP 19.793 t in 2018 and COP 22.895 t in 2017. The annual average rate of remuneration seen was an r.a. of 4.39% and an r.a. of 6.1% respectively.

75 The average balance was COP 179 b in 2018 compared to COP 131 b in 2017. The average rate of remuneration was an r.a. of 3.33% and an r.a. 5.03% respectively.

76 This result is consistent with the 2018-2022 expenditure framework approved by the Board of Directors of *Banco de la República* according to which, the average annual growth of corporate spending will probably come to 3.3% in real terms.

77 Includes what is described in the collective agreement currently in effect.

- b. The overhead, COP 111 b, registered an annual change of 6.0% (2.7% in real terms). This group includes expenses such as utilities, surveillance services, equipment maintenance, janitorial services, services contracted for the Bank and the *Luis Angel Arango* Library, improvements to facilities, transportation, fuel, supplies and stationery, surveys, special studies, legal consulting, etc.
 - c. The other corporate expenses, COP 93 b, presented an annual increase of 14.4% (10.8% in real terms). This variation is mainly explained by the greater expenditures for depreciation, debt repayment, deterioration, and loan-loss provisions.
- V. Last of all, the spending on retirement pensions, -COP 12 b, was COP 93 b lower compared to what was registered in 2017. This result includes the COP 11 b for the reimbursement of pensions approved by *Colpensiones* and the result of the financial cost which was a negative COP 1 b.⁷⁸ The lower value compared to 2017 was due to the funding of the pension liability at the end of 2017.

4.2.2 Reserve Accumulation and Profit Distribution

According to the Bank's legal framework contained in the Constitution, Act 31/1992, and the Bank's bylaws, once the net investment in goods for cultural activity is discounted and the statutory reserves are appropriated, the remainder of the profits will belong to the nation. Considering the above and the losses from the implementation of IFRS pending settlement, the Board of Directors of the Bank approved a transfer of COP 2.015 t in profits to the government in February 2019, which was carried out in late March (Table 4.4).

Table 4.4
Distribution of Profits
(billions of pesos)

	2018
A. Fiscal year result	2,241.4
B. Plus use of reserves	0.0
C. Minus accumulation of the reserves and other deductions	226.0
Losses due to the implementation of IFRS in 2015	30.7
Net Investment in Cultural Activity Goods	30.9
Loss due to the adoption of IFRS 9: change in accounting policy on TES held by <i>Banco de la República</i>	164.3
Net Result in favor of the national government: A + B - C	2,015.4

Source: Banco de la República.

⁷⁸ This financial cost is calculated by applying the same interest rate to both the asset that backs the pension liability and the pension liabilities. The latter includes the current value of the pensions, medical service, and educational aid for Banco de la República retirees. Since the average value of the asset was superior to the liabilities in 2018, this resulted in a negative financial cost.

4.3 Outlook for 2019

The budget for 2019 was approved by the BDBR in December 2018 with the prior approval of the Fiscal Policy Board (*Consejo Superior de Política Fiscal* - Confis) with regard to the implications for public finances. This budget has two main components: monetary and corporative. The former includes the results of responsibilities such as monetary, foreign exchange and credit authority; manager of the international reserves; banker and lender of last resort for credit institutions; and issuing bank. The results of monetary activity depend on variables that are not under the control of the Bank such as, for example, foreign interest rates and fluctuations in market prices. Corporate results include the administrative management of the Bank such as, for example, income from commissions, personnel costs, operating expenses and pensioner expenses.

A profit of COP 3.258 t is projected for the 2019 accounting period as a result of COP 5.066 t in income and COP 1.808 t in expenditures (Table 4.5). This forecast did not include *Banco de la República's* intervention through put options for the accumulation of reserves (USD 1.200 b of which USD 800 m were exercised in January and February) and the direct purchase of USD 1 b from the national government that was announced for the January-March 2019 period and carried out at the beginning of February. Once the purchase of USD 2.200 b was made in 2019 (between January and March), the Bank's profits would have declined approximately COP 105 b⁷⁹ in comparison to the budget approved for 2019.

The budget approved for 2019 envisions a 48.1% annual rise in income compared to what had been budgeted for 2018. The main items are as follows:

- i. Income from the net return on the international reserves is projected to be COP 3.695 t in comparison to the COP 1.871 t estimated in 2018. The average profitability of the international reserves for 2019 is estimated at 2.6% in US dollars. The budget assumes no variation in the international price of gold.
- ii. The estimated income from the valuation of the TES held by *Banco de la República* is COP 448 b compared to the COP 844 b estimated for 2018. The budget for 2019 included the portfolio that serves as the basis for the forecast and the coupon interest rates while taking into account the fact that there are no capital maturities, that the payments on coupons amount to COP 502 b, and that no final purchase or sale transactions of TES held by the Bank are projected during 2019.

A profit of COP 3.258 t is projected for the 2019 accounting period, as a result of COP 5.066 t in income and COP 1.808 t in expenditures.

⁷⁹ This intervention cost is a result of the fact that the purchases of foreign currencies lower the need for primary liquidity through expansion repos at the same time that it is estimated that the yields on the international reserves will be lower than the returns on these repos in 2019.

Table 4.5
Budget of Banco de la República, 2019
(billions of pesos)

	Approved Budget		Relative variations (B) / (A)
	2018 ^{a/} (A)	2019 (B)	
I. Total Income (A+B+C)	3,420	5,066	48.1
A. Monetary income	3,033	4,625	52.5
1. Interest and returns	3,003	4,520	50.5
International Reserves	1,871	3,695	97.5
Monetary Regulation Investment Portfolio (TES)	844	448	-46.9
Active Monetary Regulation Operations (repos)	288	376	30.6
Other Operations	0	0	-34.1
2. Differences in Currency exchange	28	102	265.9
3. Other monetary income	2	3	42.1
B. Coins issued	202	239	18.1
C. Corporate income	185	203	9.5
1. Commissions:	166	187	12.9
Banking services	58	72	24.2
Fiduciary operations	107	115	6.9
2. Other corporate income	20	16	-19.7
II. Total expenditures (A+B+C+D)	2,188	1,808	-17.3
A. Monetary expenditures	1,187	838	-29.4
1. Interest and returns	1,017	631	-37.9
Remunerated deposits: General Office of Public Credit and the National Treasury	1,001	624	-37.6
Liability Transaction Deposits for Monetary Regulation	16	7	-56.4
2. Costs of Management and Handling of Funds Abroad	34	49	43.3
3. Commitment fee for IMF flexible credit	83	83	0.2
4. Foreign exchange differences	53	29	-44.9
5. Other monetary expenditures	1	46	3,799.1
B. Banknotes and coins	227	272	20.1
C. Corporate expenditures	661	677	2.4
1. Personnel costs	397	430	8.4
2. Overhead	129	137	6.0
3. Other Corporate	135	110	-18.6
D. Pension payments	112	21	-81.3
III. Fiscal year result (I-II)	1,232	3,258	164.3

Note: cultural expenses, scholarships to students other than employees, and expenditures on technology projects that were included in other corporate expenses are presented in overhead.

a/ The 2018 budget includes the budgetary transfers made during the period. The other corporate expenses include: taxes, insurance, depreciation, loan-loss provisions, debt repayment, cultural expenses, contributions and affiliations, etc.

Source: Banco de la República.

- iii. The estimated income from repo liquidity expansion transactions (active monetary regulation transactions) is projected to be COP 376 b compared to the COP 288 b included in the 2018 budget.⁸⁰ This change is explained by the higher average volumes of these transactions and a lower policy interest rate for 2019 on average.
- iv. The estimate of how much revenue will be generated by the placement of coins into circulation is COP 239 b⁸¹ with an 18.1% annual increase compared to what had been budgeted in 2018. This forecast includes the larger number of COP 1,000 coins and the two commemorative COP 5,000 coins that will be put into circulation: 1) for the bicentenary of the national heroine Policarpa Salavarrieta's sacrifice,⁸² and 2) for the bicentenary of the Liberator's Campaign of 1819⁸³.
- v. The net income estimated based on the exchange rate adjustment is a result of COP 102 b in income and COP 29 b in expenditures due to the effect of the peso-to-dollar variation on the assets and liabilities in foreign currency other than international reserves.
- vi. The commissions received by the Bank for banking services and fiduciary transactions are estimated to be COP 187 b, which is 12.9% higher in comparison to the ones budgeted a year ago, mainly because of the higher estimated income from the management of trust securities, especially TES.
- vii. Other corporate income is estimated at COP 16 b, 19.7% lower than what was included in the 2018 budget.

The expenditures approved in the budget are projected to be COP 1.808 t for 2019 with a drop of 17.3% compared to the 2018 budget as follows:

- i. The remuneration for the national government's deposits at the Bank is expected to be COP 624 b with a 37.6% decrease compared to what had been projected in 2018 due to the lower interest rate paid for these deposits and their lower average balance.⁸⁴
- ii. The outlay for the commitment fee paid on the flexible credit line (FCL) approved by the International Monetary Fund (IMF)

80 The 2019 budget assumes a nominal annual growth of 7.83% for the monetary base. The average daily volumes for expansion repos projected for 2019 are COP 9.035 t and the average interest rate for remuneration is based on the benchmark interest rate (4.25% r.a.) in effect at the time the budget is drawn up. In 2018, average daily repo transactions were budgeted at COP 5.901 t and an average interest rate of 5.0% r.a. was budgeted for. As was mentioned, this forecast for 2019 did not include purchases of foreign currency by the Bank which, if they should occur, would reduce the volume of projected expansion repos.

81 According to the Bank's statutes, this income corresponds to the face value of the coins placed in circulation.

82 Act 1903/June 22, 2018.

83 Considered in the National Development Plan.

84 The 2019 budget envisions average daily volumes of COP 15.000 t and an interest rate of 4.25% r.a. In the budget for 2018, an average of COP 20.513 t in deposits and a 5.0% r.a. interest rate had been projected.

amounted to COP 83 b, which is 0.2% lower than what was budgeted in 2018, a variation that is explained by the decline in the amount in the FCL.⁸⁵

- iii. Expenses for administration and management of funds abroad are estimated at COP 49 b for 2019 compared to the COP 34 b for 2018. Within this value, expenses for administration and custody of the international reserves portfolio, for advice and legal representation abroad as well as for the handling of funds abroad, expenses in foreign exchange transactions and specialized information services for the management of international reserves are considered.
- iv. The costs of issuing and distributing monetary specie are calculated at COP 272 b, which is 20.1% higher than the estimates from a year ago. This is mainly explained by the growth in demand for the COP 50,000 banknote and the COP 1,000 coin. In addition, the costs of issuing the two COP 5,000 commemorative coins that have already been mentioned are estimated.
- v. Corporate outlays are projected to be COP 677 b with a variation of 2.4% annually (-1.0% in real terms), compared to the 2018 budget, of which COP 430 b corresponds to personnel costs, COP 137 b to overhead, and COP 110 b to other corporate expenses.
- vi. The annual growth of personnel costs is estimated to be 4.8% in real terms as a result of the wage increases agreed upon in the collective agreement currently in effect and of the need for personnel for the development of the Bank's strategic projects.
- vii. An increase in overhead of 2.4% in real terms is estimated. The frame of reference for the overhead is the estimated average inflation and the inflation target for 2019, the estimated change in the minimum wage, the rates for utilities and the additional expenses associated mainly with improvements, updating and software services, maintenance of the equipment for electrical infrastructure, air conditioning systems, technology, and the Treasury area. Furthermore, there could be an additional increase in the overhead due to the acquisition of assets that have an impact on expenses for maintenance, surveillance, utilities, and adaptation of property, etc. Cultural expenses, expenditures on scholarships for students other than employees, and spending on technology projects were reclassified from the other corporate to the overhead category. In particular, among the cultural expenses, additional items related to museography and museum guide books that are currently under consideration in their infrastructure areas are estimated.
- viii. Other corporate expenses such as taxes, insurance, depreciation, deterioration (provisions), and debt repayments, contributions and affiliations are estimated with an annual change of

85 The FCL went from SDR 8.18 b (approximately USD 11.5 b) based on the agreement signed on June 13, 2016 to SDR 7.8 b (approximately USD 11.13 b) based on the agreement signed on May 25, 2018.

-21.3% in real terms. This decline is primarily the result of the more limited provisions and legal expenses related to judicial processes and verdicts.

- ix. Last of all, expenditures for pensioners were budgeted to amount to COP 21 b, an amount that includes the effect of the pensions shared with *Colpensiones*. For 2019, a net zero financial cost is estimated as a result of the funding of the pension liabilities done in December 2017. The above complies with the accounting rules that stipulate that the same interest rate should be applied to the P&L in the case of both the assets that back the pension liabilities (income) and the pension liabilities themselves (expenditures).

05

Management of Cultural Assets by *Banco de la República*

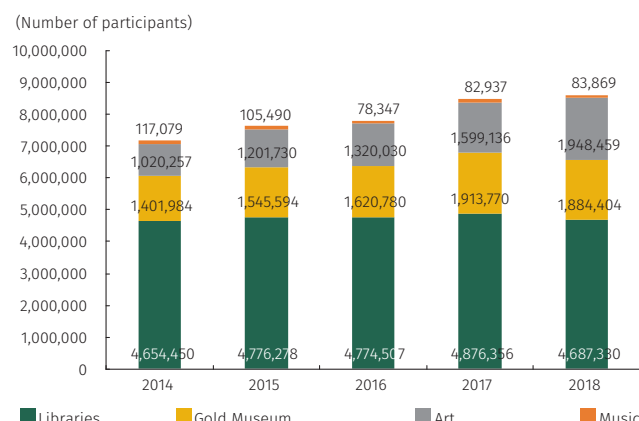
Banco de la República contributes to the country's cultural activities along four lines of action: the Gold Museums; the Network of Libraries; the art, coin, and stamp collections; and music.

Act 31/1992 (article 25) stipulated that only the Bank could continue to carry out the cultural and scientific functions it had been involved in at the time this law was passed. In carrying out this duty, the Bank contributes to the country's cultural activities along four lines of action: the Gold Museums, the Library Network, the art, coin, and stamp collections, and music activities.

On each one of these fronts, long-term projects are carried out that generate knowledge and make it possible to serve the public needs with a differentiated and inclusive approach by means of team work supported by technology. This model reinforces the ties with the local community and allows for a dialog with the world.

More than eight million people come in personally to use *Banco de la República's* cultural network in Bogota and in 28 cities. In all of the areas, there is a growing trend in the number of users. In this regard, those who use the Library Network stand out (Graph 5.1).

Graph 5.1
Participants in *Banco de la República's* Cultural Activity



Source: Banco de la República.

5.1 The Gold Museums

The Gold Museum in Bogotá together with its six regional museums⁸⁶ preserves and exhibits one of the most important pre-Hispanic collections in terms of the number of gold articles it has. The Museum has gravitated towards quality and innovation in their work in research, conservation, and circulation of Colombia's archaeological heritage. This has contributed to the appropriation of the country's pre-Hispanic past and turned it into a symbol of national identity. Having been in existence for eighty years, these collections under their custodianship⁸⁷ come to 34,261 articles made of gold and 19,171 articles made of ceramic, textiles, or wood in addition to other materials.

In 2018, the Gold Museum in Bogotá had 630,000 visitors of whom more than half (334,000) were foreigners. The regional Gold Museums also had a significant influx, as they registered 1.3 million visitors. These figures are significant when compared to the 496,000 visitors at the Gold Museum in Bogotá and the 900,000 at the regional museums in 2014.

As part of their mission, the Gold Museum has a teaching box program which consists of small exhibitions with educational-recreational activities that teachers and cultural mediators can take to schools, libraries, and community cultural centers. These services are provided at no cost from any of the 29 cities that are part of the Bank's Cultural Network. In 2018, more than 96 thousand people took advantage of the activities supported by these boxes.

In 2018, the Gold Museum network held seventeen exhibitions, fourteen of which were put on in the regions. In Bogotá, three exhibitions were held and two of these were international: "First Nations of Canada," "Culture and Performing Arts from the Royal BC Museum in Victoria, Canada," and "On board a Slave Ship, the Marie-Séraphique," from the set of collections at the Château of the Dukes of Brittany-Nantes history museum.

⁸⁶ To exhibit its collections, the Gold Museum has a headquarters in Bogotá and six regional museums: 1) *Quimbaya* Museum in Armenia; 2) *Calima* Museum in Cali; 3) *Zenú* Museum in Cartagena; 4) Ethnographic Museum in Leticia; 5) *Nariño* Museum in Pasto; and 6) *Tairona* Museum-Customs Office (*Museo del Oro Tairona Casa de la Aduana*) in Santa Marta.

⁸⁷ Act 1185/2008 article number 3: "In compliance with articles 63 and 72 of the Constitution, items that are part of our archaeological heritage belong to the nation and are inalienable, and not subject to statutes of limitation nor liens. The Colombian Institute of Anthropology and History (ICANH in Spanish) may authorize individuals or legal entities to have custody of archaeological heritage treasures provided that they comply with the registration, handling, and security requirements for those items as determined by the Institute."

As part of its international outreach program, the Gold Museum participated in the Golden Kingdoms exhibition “Luxury and Legacy in the Ancient Americas” at the New York Metropolitan Museum and presented the *El Dorado* exhibition The Spirits, Gold, and Shaman at the National Museum of Korea and the Gimhae National Museum.

The Gold Museum in Bogota had 630,000 visitors in 2018, of whom more than half were foreigners.

5.2 The Network of Libraries

In 2018, *Banco de la República* celebrated the *Luis Angel Arango* Library’s 60 anniversary, the 30th anniversary of the *Orlando Fals Borda* Regional Documentation Center in Montería, and the 30th anniversary of the *Darío Echandía* Library in Ibagué, thus establishing its position as a national network of libraries that offer cultural services and programming in places that meet the needs of the public such as rooms for children, music, audiovisuals, conferences, and exhibitions.

The Network of Libraries serves an average of 4.7 million users who come in personally each year and registered a 20% increase between 2014 and 2018. The Virtual Library receives 10 million visits per year.

Those who use the network get access to the 2,825,183 titles, to electronic databases, and digital collections. Furthermore, those who become members of the network can check out documentary material in various formats and access specialized services in any of the 29 cities that are part of it.

Banco de la República’s virtual library has more than 50,000 digital documents, 3,000 historical images, close to 4,000 issues of past newspapers, 600 ancient maps, and more than 60 free online digital projects. The work of the Virtual Library received recognition twice from the Digital Humanities Award, an endeavor spearheaded by Oxford University: 1) in the Best use DH public engagement category for the Images and Stories of a Trip around Colombia project, and 2) in the Best use DH for fun category for the school song collection project.

In addition, the itinerant book boxes are collections of reading material in various formats (books, DVD, CD) that the network of Libraries loans to teachers and cultural mediators as a strategy for extending access to books into rural communities. In 2018, more than 400,000 people benefited from these materials.

The Network of Libraries serves an average of 4.7 million users face-to-face every year.

5.3 The Art, Coin, and Stamp Collections

Banco de la República’s art collection has more than 5,800 works of art that are representative of Colombia, Latin America, and the world and that date from the 15th century to present day. The collection is on permanent exhibition at the *Miguel Urrutia* Museum of Art (MAMU

in Spanish) and the *Casa Republicana* (House of the Republic). Added to the above are the collections donated by Fernando Botero and by the Gómez Campuzano family. The Mint Museum (*Casa de Moneda*) exhibits the Bank's coin collection which has a total of more than 19,600 coins and is considered one of the most important ones in Latin America because of its quality and exclusivity. The stamp collection with more than 35,000 stamps is in Medellín.

In the last few years, the Bank has further decentralized its cultural services for the dual purpose of making the art collections more widely known in the regions and fostering the creation of the visual arts through exhibitions, workshops, and laboratories in local communities.

Close to two million people participate annually in the Bank's art activities throughout the country.

The Bank held an exhibition in Madrid in 2018 called "Through the Country: Colombian Art in *Banco de la República's* Collection," a sample that brought together more than 130 works of Colombian art. The following temporary exhibitions as well as others were put on in Colombia: "Sueño de la Razón" together with *Fundación Bancaria La Caixa* (La Caixa Bank Foundation), of Spain, the Museum of Antioquia, and the Agnus Dei of the Prado Museum.

The ARCO Foundation, which organizes the Madrid International Fair of Contemporary Art, granted *Banco de la República* the "A al Coleccionismo" Prize in the category International Collecting to highlight their work for more than half a century.

5.4 Music

The Bank works with music by programming a national season in the 29 cities that are part of its cultural network. During 2018, 163 concerts with an attendance of 84,000 people were given throughout the country. The purpose for this work is to provide access to and enjoyment of music through concerts, workshops, classes, rooms for creating music and teaching concerts.

The Bank also promotes the professional development of new generations of Colombian musicians through the convocation of Young Performers (every 2 years 30 young musicians participate in this program). One line of work that has become stronger in recent years is supporting the creation and preservation of music by commissioning musical arrangements and recording and promoting chamber music. In this line of work, the "Colombia se Compone" program produced three new albums of Colombian composers in 2018.

In recent years, the Bank has further decentralized its cultural services.

In 2018, there were 163 concerts all over the country with attendance of 84,000 people.

5.5 Scholarship Programs for Graduate Studies Abroad

As part of their culture policy, *Banco de la República* helps Colombian artists and musicians further their skills by encouraging studies abroad through the annual Talented Young People competition. The two fields alternate since one year a student of music is supported and the next year, a student in visual arts is. Since 1986, 32 beneficiaries have been given support: 17 in music and 15 in visual arts.

Share of the Bank for International Settlements held by *Banco de la República*

Act 1484/December 12, 2011 authorized *Banco de la República* to participate as a shareholder of the Bank for International Settlements (BIS). Based on the authorization conferred on it, the Bank acquired 3,000 shares of the BIS for a price of 65,712,000 in special drawing rights (SDR), which is equivalent to USD 100,978,710 that are registered on the books at their acquisition cost in SDR under “contributions to international organizations and entities.” On June 28, 2018, the Bank received SDR 705,000 (USD 994,668.3 in dividends which corresponded to the BIS accounting year that ended in March 2018 (April 2017 to March 2018), and which are equivalent to an annual return of 1.07%.¹

The membership of *Banco de la República* in the BIS has allowed the directors of the Bank to participate in periodic meetings in which recent events and the outlook for the global economy and the financial markets are examined. These meetings are a discussion forum where points of view and experiences with issues of particular relevance to central banks are exchanged, which contributes to a better understanding of the challenges that affect countries and to implementing appropriate policy measures. It should be noted that the Bank has been part of the Meeting of Small and Open Economies, which was organized by the governor of the central bank of Iceland, since March 2018. Various topics of relevance to these economies were discussed at this

meeting. Likewise, since January of 2019, the Bank has been part of the Central Bank Governance Group (CBGG) where experiences are shared with regards to the design, operation, and management of these institutions as they seek to foster better practices in central banks.

In 2018, the discussions during the meetings of the governors of BIS member countries focused on various topics such as fintech, crypto-assets, the challenges of globalization, the use of macroprudential measures, the possible effects on emerging economies of the tightening of monetary policy by the central banks of advanced economies, and the role of foreign investors in local financial markets.

Furthermore, the Bank participates in various consultative groups coordinated by the BIS such as the Consultative Council for the Americas (CCA), which consists of the governors of the central banks in the Americas that are members of the BIS.² These forums foster international cooperation and research on issues related to central bank policies and other topics that impinge on macroeconomic and financial stability.

Within the framework of the work coordinated by the CCA, the Bank actively participates in research projects and conferences on various areas relevant to central banks. Among them was the Scientific Committee (which includes the head economists of the respective central banks), which organizes the annual research network and which, for 2018, chose the use of microdata in economic research at central banks as the focus.³ Along the line of this same Committee, the research network on the transfer of variations in the exchange rate to inflation (pass through) and commerce using company-based data was

¹ The BIS General Assembly approved the payment of a dividend of 235 SDR per share. The profitability corresponds to the ratio between the dividend received and the purchase price per share (21,904 SDR).

² Argentina, Brazil, Canada, Chile, Colombia, the United States, Mexico, and Peru.

³ The schedule and documents are available at: <https://www.bis.org/events/ccaconf2018/agenda.htm> During the meeting, a researcher from the Bank's Medellín branch presented a paper on the effects of increases in the cost of short-term debt on the liquidity funding for firms (L. Cardona, F. Restrepo, and P. Strahan, 2017. “Funding Liquidity without Banks: Evidence from a Shock to the Cost of Very Short-Term Debt,” NBER Working Papers, no. 23179, National Bureau of Economic Research, Inc.).

finalized in 2018.⁴ In November 2018, the CCA suggested including a new research network on the design and implementation of monetary policy and fintech analysis frameworks for 2019.

The closing conference for the study group on the changes in the banks' business models and their impact on bank credit using the credit registry data of the Consultative Committee of CCA Financial Stability Directors was held in September 2018.⁵ In that committee's annual meeting, recent aspects of the international situation and cyber-security were discussed and research priorities and progress on research applied to the analysis of financial stability were reviewed. In addition, the results of the simultaneous application of stress tests that have been coordinated by the Bank to evaluate the resilience of the financial system in the event of various shocks were shown in August 2018.

In 2018, the Bank participated in: 1) the annual meeting of the deputy governors of central banks of emerging countries that are members of the BIS. These meetings were focused on the effects of globalization on emerging economies. A study that was prepared by the Bank and describes the dynamics of trade integration within different economic sectors and between countries as well as the Colombian experience in that process was published in the BIS Papers series⁶ where

the contributions from different central banks are compiled; 2) a seminar on cyber security in central banking; and 3) a conference on the BIS reserve management in the Americas.

Moreover, the Bank is member of the Consultative Group of Directors of Operations (CGDO), a network of representatives of the central banks who are responsible for the central bank operations. The last meeting, in which the main topics were digital currencies issued by central banks and the supply of and demand for money-like assets, was in May 2018. During the November 2018 meeting, the proposal was made to set up a working group to analyze interventions in foreign exchange from an operational perspective.

4 The description of the project can be found at: https://www.bis.org/am_office/rsn/erkdeit.htm. A researcher from the Cali branch who participated in the closing meeting presented a paper that analyzes whether there are differences in the way changes in the exchange rate have an impact on the different industrial sectors in Colombia (C Casas' presentation of the document is available at <https://www.bis.org/events/ccaresearchconf2018/colombia.pdf>).

5 The schedule and documents are available at: <https://www.bis.org/events/ccacgdfs2018/agenda.htm>. The Bank presented a paper at that meeting on how the bank-lending channel in Colombia has changed as a result of Colombian banks expanding abroad: (P. Morales, D. Osorio, and J. Lemus, 2018. "The Internationalization of Domestic Banks and the Bank-Lending Channel: an Empirical Assessment," available at: <https://www.bis.org/events/ccacgdfs2018/colombia.pdf>).

6 A. Murcia, H. Vargas, and C. Leon (2018), "International Trade Networks and the Integration of Colombia into Global Trade," was the Bank's contribution at this conference and it is available at https://www.bis.org/publ/bppdf/bispap100_g.pdf

Appendix 1

Management Policy for the International Reserve Investment Portfolio

According to the best practices' recommendations, the management of reserves should endeavor to: 1) have enough liquidity in foreign currency, 2) have strict policies regarding the management of the different risks that the transactions face, and 3) generate reasonable, risk-adjusted returns subject to liquidity and other risk restrictions.¹ How these criteria are applied in the management of Colombia's international reserves is explained below.

1. Risk Management Policy

Banco de la República has a framework for risk management that identifies and assesses the risks to which their transactions are exposed in order to keep them low. Some of the main policies for risk management are as follows:

Liquidity risk: investing in financial assets that are permanently in demand on the secondary market in order to have the ability to turn reserve assets into cash quickly and at low cost. The portfolio is also divided into tranches so that some of them can be liquidated more rapidly.

Market risk: classes of eligible assets and strict limits on investment are used to lower the sensitivity of the value of the portfolio to interest rate movements in the market.

Credit risk: investments are only made in assets with high credit ratings by major rating agencies

given that these investments have a low probability of defaulting on their payments. The minimum credit rating for governments and entities related to governments is A-. With respect to private issuers, the minimum rating is A+ for exposure to individual issuers and BBB- (investment grade) when the investment is done through funds. Historically, the percentage of issuers with these ratings that have defaulted on their payments the year after is close to 0%. If the rating of an issuer that the portfolio has invested in directly drops below the minimum allowed, the exposure is liquidated within a short period of time. Moreover, the maximum exposures are limited by sector and issuer in order to limit the impact of credit events on the value of the portfolio.

Exchange risk: estimates of the currencies are highly volatile and do not often have defined long-term trends. This makes it very difficult to reliably predict their behavior. *Banco de la República*, like the majority of the central banks around the world, has currencies other than the US dollar as part of their currency components in order to cover the country's payments abroad since these are made in many currencies. The impact of the foreign exchange risk is mitigated by the "foreign exchange adjustment" equity account that is dealt with under Decree 2520/1993 number 4 of article 62 (Statutes of *Banco de la República*). These rise during those years in which the reserve currencies become stronger with respect to the Colombian peso and decline in those years when they weaken. Therefore, the variations in the currencies do not have any impact on the consolidated profit or loss statement.

¹ One example of good practice in this respect can be found in the document "Guidelines for the Management of International Reserves," produced by the International Monetary Fund, which can be consulted at <http://www.imf.org/external/np/sec/pr/2013/pr13138.htm>

Counterparty risk: to reduce exposure to counterparties, transactions are settled through payment-on-delivery mechanisms, which seek to make the exchange of papers for cash or the exchange of payments in a foreign exchange transaction occur simultaneously in order to eliminate the possibility of one of the parties to the business defaulting. In addition, counterparties in fixed income trading are required to be market makers and the counterparties in currency trading are required to have high credit ratings. The foreign currency exchange counterparties must have a minimum credit rating of A- if they have an ISDA framework contract.² If they do not have said contract, the minimum rating is A+.

2. Tranche of the Investment Portfolio

The investment portfolio is made up of three tranches: the short term, the medium term and the gold tranche. The purpose of the short-term tranche is to cover potential liquidity needs from the reserves in twelve months. Currently, this tranche consists of working capital and a debt portfolio. The working capital is the portfolio into which the funds that come from intervention in the exchange market are placed and their investments are concentrated in very short-term assets denominated in dollars. Given that the objective of this tranche is to provide immediate liquidity for intervention in the foreign exchange market, the working capital is concentrated in deposits and investments that can be liquidated in one day at a very low cost.

The debt portfolio is the main component in the short-term tranche. This portfolio is characterized by its investment in a larger number of instruments and having a time limit and profile of expected profitability that are greater than the working capital portfolio. It is under the restriction that the expected return on the portfolio, excluding the foreign exchange component, must be positive

in 12 months with a confidence level of 95% and that the expected value of a possible loss must not exceed 1.0%. The debt portfolio is invested in multiple currencies in order to duplicate the behavior of the outlays in the country's balance of payments and seeks a return similar to that of the benchmark index.³ In December 2018, the value of the short-term tranche was USD 29.4237 b, of which USD 1.6728 b corresponded to working capital and USD 27.7509 b to the debt portfolio.

The medium-term tranche is implemented with a time limit and a profile of expected profitability that is higher than the short-term tranche. The goal of the medium-term tranche is to maximize the risk-adjusted return in US dollars, the currency in which the international reserves are valued, for the portion of the portfolio that is less likely to be used within a twelve month period. When there is a medium-term tranche, an effort is made to raise the expected profitability of the international reserves in the long term while maintaining a conservative portfolio. Thus, the maximum return, subject to the restriction that the expected return in US dollars for this tranche be positive with a 95% probability over a horizon of three years and that the expected value of a possible loss not exceed 1.0%, is what is sought. Currently the majority of the medium-term tranche consists of actively managed portfolios that seek to generate a return that is higher than the benchmark index.⁴ As of December 2018, the value of the medium-term tranche came to USD 16.4552 b.

The last tranche corresponds to the international reserve investments in certified physical gold that can be easily traded on international markets. Gold makes it possible to diversify the investment portfolio since its price behaves differently than the prices of the securities which the short- and medium-term tranches are invested in.

² The purpose of the framework contract established by the International Swaps and Derivatives Association (ISDA) is to establish the terms and conditions that govern over-the-counter derivatives traded between entities.

³ The concept and components of the benchmark index will be explained in the next section.

⁴ The fact that one of the seven active portfolios is managed directly by *Banco de la República* and the rest by external managers is explained in the section "External Management Program." An explanation on how this program functions can also be found there.

As of December 2018, the market value of the gold in the reserves came to USD 529.3 m.

The securities in the investment portfolio are deposited in financial institutions known as trustees.⁵ The entities that provide custody service for the securities in the international reserves are the New York Federal Reserve, Euroclear, JP Morgan Chase, and State Street. The investments in physical gold are in the custody of the Bank of England.

3. Benchmark indices

To manage the reserve investment portfolio, *Banco de la República* has defined theoretical portfolios or benchmark indices.⁶ Different indices are built for the short-term and for the medium-term tranches in order to reflect each of their investment goals. The indices serve as a frame of reference to measure the management of each one of the portfolios. The way the two benchmark indices are built is explained below.

In order to build the short-term tranche index,⁷ first of all, objective foreign exchange components are determined. The foreign exchange components for this index are intended to duplicate the trend of the outflows from the country's balance of payments.⁸ The goal is for the currencies other than the US dollar to appreciate during

periods in which the dollar value of the country's payments abroad increases, which would mean that the value of these foreign currencies could decline with respect to the US dollar during periods in which the dollar value of the foreign payments decreases. As of December 31, 2018, the foreign exchange components of the short-term tranche index was 82% US dollars, 9.0% Australian dollars, 5.0% Canadian dollars, 2.0% New Zealand dollars, and 2.0% Norwegian krone.⁹ Once the components of the foreign exchange are defined, two restrictions are included: the restriction of having positive returns over a horizon of twelve months with a 95% level of confidence while excluding the exchange rate effect and the restriction that the expected value of a possible loss over a horizon of twelve months not exceed 1.0% of the value of the tranche. Based on the restrictions described, a portfolio that maximizes the returns adjusted for risk is sought.¹⁰

In creating the index for the medium-term tranche, a similar procedure was followed with two basic differences. First of all, no currency exchange component restriction is imposed given that the goal of this tranche is to maximize the risk-adjusted return in US dollars. Secondly, the restriction of having positive returns at a 95% confidence level and that the expected value of a possible loss not exceed 1.0% of the value of the tranche is defined for a longer horizon (three years) in order to reflect the lower probability of using the funds in this tranche in the short term. When building a portfolio that maximizes risk-adjusted profitability in dollars, investments in currencies other than the dollar are allowed.

5 Currently, the minimum credit rating for the trustees is A-.

6 In the capital markets, a benchmark index refers to a basket of assets with predetermined weights in accordance with certain rules that define their components. In general, an index tries to comprehensively duplicate the trend of a financial asset market and serves as an indicator of the performance of other investment portfolios in the same market. For example, some of the best-known benchmark indices on the stock markets are the ColCap in Colombia, or the S&P500 and the Dow Jones in the United States (the Bank uses fixed income market indices only).

7 This benchmark index does not apply to working capital since there are no benchmark portfolios that make it possible to measure the instruments allowed in this portfolio properly.

8 See the box, "International-reserve Portfolio's Currency Composition in the March 2012 Report to Congress for a detailed explanation of the methodology for the foreign exchange components of the reserves.

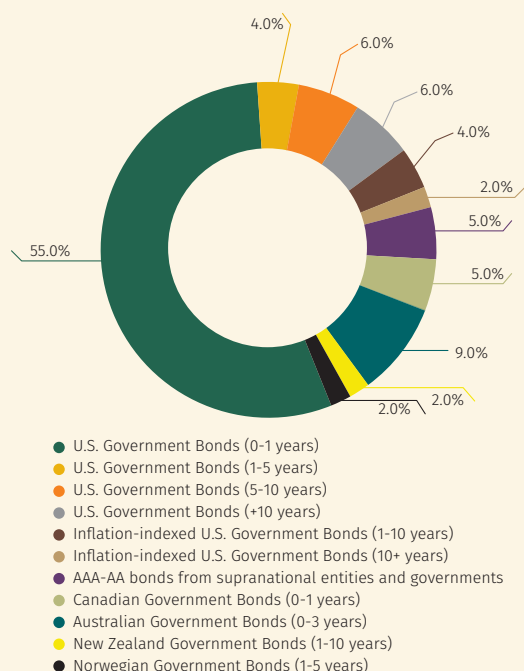
9 The euro is not part of the group of currencies that the benchmark index is made up of. The reason why it is not in this group is because both the benchmark interest rate of the European Central Bank and the rates for the main short-term sovereign bonds issued in euros are negative.

10 The detailed description of the methodology for building the benchmark index is located in the Box, "Technical Explanation of the Methodology for Building the Benchmark Index," in the March 2013 Management Report on the International Reserves.

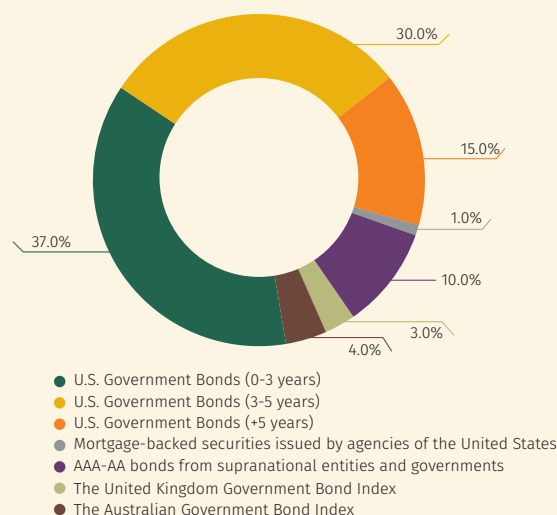
Graph A shows the benchmark indices approved for the short- and medium-term tranches.¹¹ The two portfolios have a low level of market risk. The modified duration of the short-term tranche index is 2.58 and the one for the medium-term tranche is 4.23.¹²

Graph A
Breakdown of the Benchmark Index
(as of December 31, 2018)

1. Short-term Tranche



2. Medium-term Tranche



Note: Merrill Lynch, along with others, builds indices that make it possible to measure the performance of different sectors of the fixed income market. The government bond indices include all of the instruments that comply with the minimum conditions of size and liquidity. Their rules are a matter of public record.
Source: *Banco de la República*.

4. External Management Program

Banco de la República manages the short-term tranche, a portion of the medium-term tranche, and the gold tranche directly (USD 33.3658 b or 72% of the investment portfolio). The remaining medium-term tranche funds are managed by external portfolio managers.

At the end of December 2018, the external management program came to USD 13.0423 b (28% of the investment portfolio). The reason for using external managers is to generate returns that are better than the benchmark index and train Bank officials in the management of international investments. The firms chosen to participate in the program

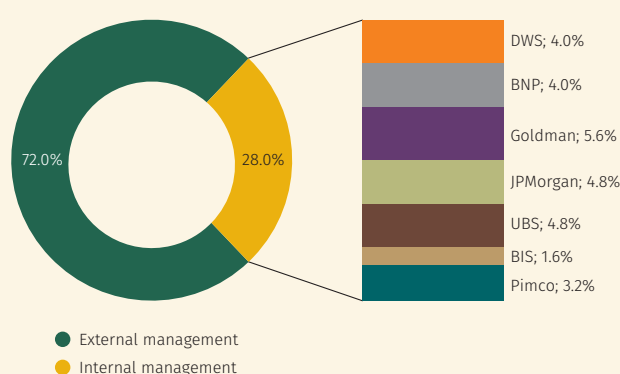
¹¹ The indices published by Merrill Lynch are used for the different sectors the benchmark index is made up of. The benchmark indices presented were approved in November 2018. At the close of December 2018 they were still in the process of implementation.

¹² The modified duration is defined as a percentage decrease (increase) in the value of the portfolio with respect to a 1.0% increase (decrease) in all of the interest rates.

are highly capable in the analysis of financial markets and have a sophisticated infrastructure that can be taken advantage of in order to define investment strategies.

The private companies that participate in the external management program currently are: Deutsche Asset Management International GmbH, BNP Paribas Asset Management USA, Inc., Goldman Sachs Asset Management, L.P., J.P. Morgan Asset Management (UK) Limited, Pacific Investment Management Company LLC, and UBS Asset Management (Americas) Inc. (Graph B). The private firms that participate in the program are chosen through a competitive bidding process and continuously evaluated. The funds that these entities manage are in *Banco de la República's* custody accounts and the administrators' contracts can be canceled whenever considered necessary. Based on the results each administrator obtains beginning with the starting date of their contract, the amount managed will be modified or their continuing to participate in the program will be reviewed. The investments in funds managed by the Bank for International Settlements (BIS) are also considered part of the external management program. Only central banks and multilateral entities have access to these funds and the purpose for them is to invest in the assets that are appropriate for global international reserves in an effort by countries to work cooperatively.¹³

Graph B
Breakdown of the Investment Portfolio
(as of December 31, 2018)



Note: approximate values due to rounding.
Source: *Banco de la República*.

¹³ At present, the investments are made in a fund of inflation-indexed securities issued by the Treasury of the United States (USD 108.7 m), a fund of securities issued by the government of China (USD 256.1 m) and a fund of securities issued by the government of Korea (USD 107.1 m) and a fund of securities issued by non-financial corporations (USD 250.9 m).

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