



THE BOARD OF DIRECTORS' REPORT TO THE  
CONGRESS OF COLOMBIA

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# BOARD OF DIRECTOR'S REPORT TO THE CONGRESS OF COLOMBIA

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March 2015

*Banco de la República*  
Bogotá, D. C., Colombia

ISSN - 2145-6801

## BOARD OF DIRECTORS

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Bogotá, March 27, 2015

**Honorable  
Chairmen and Members  
Third Standing Constitutional  
Committees of the Senate  
and the House of Representatives**

Dear Sirs:

The Board of Directors of *Banco de la República*, in accordance with the provisions of article 5° of Act [“Law”] 31/1992, submits to the Congress of the Republic of Colombia a Report on the macroeconomic performance of years 2014 and 2015 to date. Similarly, targets adopted for the current year by the Board of Directors and prospects of the different macroeconomic variables are shown. The last two chapters report the composition of foreign reserves and the projection of *Banco de la República*’s financial situation for year 2015.

Very truly yours,

A handwritten signature in black ink, consisting of a stylized 'J' followed by a horizontal line and a small flourish at the end.

**José Darío Uribe Escobar**

**Governor**





# MONETARY, EXCHANGE AND CREDIT POLICY

## MONETARY POLICY

The Political Constitution of 1991 established that “The State, through *Banco de la República* (the Central Bank of Colombia) shall ensure that the purchasing power of the currency will be preserved”. Subsequently, the Constitutional Court in its ruling C-481 dated July 7, 1999, delved into the need of coordination among the monetary, exchange and credit policies falling under the responsibility of *Banco de la República*’s Board of Directors (“BDBR”), and the National Government’s fiscal, wage and employment policy:

“[...] the Bank’s activity aimed at maintaining the currency’s purchasing power must be exercised in coordination with the general economic policy [...]”.

The constitutional mandate to preserve price stability in an economy offers many advantages; one of the most important of which is that when this target is reached the least favored people are protected from a tax, i.e., the burden of inflation. In this social group where income cannot keep pace with the prices of the basic basket of goods, acceleration in inflation will end up by generating very serious losses in their purchasing power.

Monetary policy must watch over price stability in coordination with a general policy to be understood as a strategy aimed at fostering output growth and employment. In this context, an increase in production above the installed capacity of the country must be avoided, since aside from causing inflationary pressures, it puts sustained economic growth in jeopardy. Therefore, monetary policy must also be directed towards stabilizing both output and employment at their long-term sustainable levels.

The target inflation strategy implemented since year 2000 by the BDBR is oriented towards meeting this constitutional mandate. With it, monetary policy seeks to reach and keep inflation low and stable while softening output and employment fluctuations around a path of sustained growth.

For 2000 and 2001, the BDBR established set inflation targets, and from 2002 onwards, it began to announce a target range for the forthcoming year, attempting at all times to reduce the prices of the basic basket of goods and watching over the currency’s purchasing power. In November 2001, the BDBR reported that the

long-term inflation target was 3.0% and explained that keeping that objective in view meant protecting price stability in the country. This is how inflation stood at about 3.0% in mid-2009 and, from 2010 onwards, remained the established range (between 2.0% and 4.0%) has remained focused on the long-term target.

The inflation target range is a communication strategy aimed at informing the public that inflation dynamics entail uncertainty and controlling it is an exercise subject to transitory shocks not always easy to counter through monetary policy. These transient fluctuations do not imply lack of commitment on the side of the central bank to the purpose of keeping price stability.

Monetary policy decisions are made on the basis of an analysis of the current state and prospects of the economy, as well as on an assessment of inflation forecasts and expectations vis-à-vis the long-term target (3%). In this way, the BDBR determines the value to be borne by its main monetary instrument: the reference interest rate (or the policy interest rate, or the intervention interest rate), in order to stabilize inflation at 3%. The main criteria taken into account by the BDBR for setting such rate are the following:

- Whenever the analysis of present and future inflation, along with its explanatory variables, indicates that inflation may deviate from 3.0%, the intervention interest rate is modified so that, in due time, inflation is brought back in line with its long-term target. When the deviation exclusively obeys to temporary supply factors (such as a rise in food prices) and inflation expectations are “anchored” to that target, the monetary policy stance remains unchanged.
- The intervention interest rate is fixed with the aim of keeping an appropriate balance between achieving the inflation target and softening the fluctuations of both output and employment around a sustained growth path. In this sense, inflation strategy in Colombia is flexible for it takes care of maintaining inflation at 3.0% while avoiding overspending or excess productive capacity.
- The interest rate is aimed at allowing monetary policy to help mitigate financial unbalance risks understood as excessive leverage or very high price of assets likely to compromise the country’s financial stability, in this way making it easier for the economy to move closer to its sustained growth path in mid and long-term horizons.

The foregoing criteria are incorporated in monetary policy decisions, seeking a balance among them. Thus, the intervention interest rate moves gradually, except in those conditions where the likelihood (or certainty) of inflation threatening to deviate significantly or the economy from its sustained growth path are high.

Another of *Banco de la República’s* functions is ensuring liquidity in the economy; it is performed on a daily basis through one-day repo operations made with the financial system at a cost equal to the intervention interest rate.

## FOREIGN EXCHANGE POLICY

Since September 1999, Colombia has had a flexible exchange rate according to which the value of Colombian Peso vis-à-vis other currencies is determined by free supply and

demand in the exchange market. This regime, in addition to being coherent with the target inflation strategy, has the following advantages:

- Exchange flexibility is desirable in countries frequently experiencing real shocks. For example, steep falls in the terms of trade are usually accompanied by nominal devaluations contributing to soften the shock. Thus, movements in the exchange rate tend to accommodate relative prices in the economy and lessen the impact of shocks on activity and employment.
- In the face of external shocks, great part of the adjustment is made by the exchange rate; therefore, the market's domestic interest rate is more stable in a flexible system than in another with a fixed exchange rate.
- In a floating exchange rate system, the authorities of a small and open economy like Colombia have more autonomy in their monetary policy, and this allows them to respond to its own economic cycles. On the contrary, a fixed exchange rate vis-à-vis a developed country's currency would make monetary policy dependent on an external monetary authority. In this way, if economic cycles are not synchronized, monetary actions by the developed nation might generate negative effects on the emerging country's output and employment.
- Exchange mismatches arising from an agent with an income in local currency and liabilities partially expressed in another currency with no coverage whatsoever, thus entailing a risk for a country's financial stability, are discouraged by a flexible exchange rate system.
- With inflation expectations at the midpoint of the target range, exchange flexibility is a useful tool of product stabilization. In fact, since this system was implemented in the 90s, monetary policy has been strongly countercyclical.

As stemming from the above, setting targets for the exchange rate may be incoherent with the inflation target; it weakens the target inflation scheme and undermines monetary policy credibility. Moreover, any attempt aimed at setting a fixed exchange rate brings risks of financial instability to the extent that economic agents do not incorporate exchange risks in their indebtedness-related decisions.

Nevertheless, *Banco de la República* as an exchange authority has the power to intervene in the foreign exchange market. Thus, a target inflation strategy under a flexible exchange rate regime must evaluate whether an intervention policy is coherent or not with achieving an inflation target in the medium term. In this manner, exchange rate management acknowledges the importance of flexibility as a core element of the strategy.

From the time the flexible exchange rate regime was implemented, the Bank has taken part in the exchange market with sterilized interventions with no intention of fixing or achieving any specific exchange rate level.

The following are the main purposes of such interventions:

- To mitigate movements of the exchange rate that are not clearly responding to the behavior of economic fundamentals. This is aimed at preventing further currency rate corrections from putting the inflation target at risk.
- To diminish exchange rate volatility around its trend.

- To increase the level of foreign reserves in order to reduce external vulnerability and improve the conditions of access to external credit.
- To ensure the necessary foreign currency liquidity required.

## MONETARY POLICY AND FINANCIAL STABILITY

Monetary policy also seeks to avoid financial imbalances originating, for example, in high leverage or excessive risk-taking episodes. Generally, they result in financial crises and strong fluctuations of both output and employment. To face this kind of episodes there is a variety of measures where the use of a specific subset of them may be justified according to the general conditions of the economy and the particular financial problem to be addressed.

The economic theory and countries' experience teach that one of the determining factors of financial instability is having "abnormally" low or high policy interest rates for prolonged periods of time. In the first case (low rates), agents tend to underestimate risk; the price of assets may grow beyond sustainability and, generally, there is a tendency to invest in riskier assets. On their side, credit agencies increase loans as a proportion of capital, and sometimes they also reduce the requirements for the granting of loans. In addition, the participants in financial markets replace safe assets with riskier ones in search of higher returns. In this way, the economy may have to face very high indebtedness and risk levels, hence becoming more vulnerable to unexpected adjustments in income like, for instance, those deriving from the loss of jobs.

In the second case, when policy interest rates are exceptionally high, economic activity and asset prices are likely to fall and unemployment may grow, in this case increasing credit default and non-payment risks. Should these risks materialize, default by debtors and the negative effects of the fall of asset prices will threaten the lending institutions' solvency and hamper the good functioning of financial markets and the monetary policy.

As a result, strong and prolonged deviations of the policy interest rate from its "normal" level may increase the likelihood of financial instability situations. For this reason, mitigating this financial imbalance risk is one of the criteria used by the BDBR to establish the reference interest rate level.

Nevertheless, policy rate movements are insufficient to prevent financial imbalances from taking place.

In such a situation, *Banco de la República* may use other instruments if it deems it necessary to supplement that tool in order to, for example, counter possible excess in credits. The use of these tools needs to be based on a careful cost-benefit analysis. In addition, institutions sharing the financial stability objective, such as the Office of the Financial Superintendent, the Ministry of Finance, the Guarantee Fund of Financial Institutions ("Fondo de Garantías Financieras – Fogafin") may adopt other measures to discourage this kind of imbalances.

Finally, the Central Bank as an issuing entity must ensure the efficient and safe functioning of the payment systems, besides being a "lender of last resort".

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# INTRODUCTION

After the fast recovery from the effects of the 2009 financial crisis, the Colombian economy enjoyed a sustained period of economic expansion from 2010 to 2014, leading it to be one of the most dynamic in Latin America. Figures so prove it: annual average growth during those years was 4.8% and the unemployment rate for the national total shifted down to 9.0%, thanks to a massive creation of waged jobs that contributed to decrease the informality index, increase consumer confidence and stimulate household consumption.

This good performance was in part the result of betterment in the terms of trade, fostered by the strong increase of oil prices which, for the Brent reference, reached an average level of USD \$110 per barrel (bl) in that four-year period. As a result, the Colombian economy obtained extraordinary revenues, favoring public finances and increasing the available income. This was reflected in a strengthening internal demand that encouraged economic activity and generated a virtuous cycle bringing great social and economic benefits for the country.

Growth observed in 2013 and 2014 shows a total consumption expanding above the pace of the economy, with strong dynamism of both household and government. As for gross capital formation, civil works and buildings (mainly of housing) were the leading line items. The benefits brought by the oil bonanza were used by the Government for its social and infrastructure programs and by households for investing in housing and increasing consumption, especially of durable goods. In both years, chiefly in 2014, the domestic demand grew more than the gross domestic product (GDP), and at the same time received ample levels of external financing.

In this context, starting in the second semester of 2014 the Colombian economy began to receive a severe shock in its terms of trade as a result of the surprising fall in the international price of oil. This decrease reached a 60% between late June of 2014 and mid-January of 2015, going from USD 115 bl to USD \$45.8 bl for the Brent reference. Forecasts by international analysts allow foreseeing the persistent component in this shock.

Everyone agrees that prices will recover slowly, hardly regaining in the medium term the levels observed prior to the recent fall, since the excess of

supply of crude oil being the main cause of this phenomenon is not expected to fall away in the next few years.

In this manner, a positive driving factor of the Colombian economy will cease to boost growth. Due to the continuance of the shock, it is essential that the country's economy adapts to the new circumstances. Otherwise, macroeconomic unbalances would jeopardize the progress made so far that are helping Colombia to be placed as an economy with a positive investment grade and significant advancements in the social front.

Such adjustment grows in importance to the extent that the prolonged oil boom has brought this economic sector to a leading role in some aspects of the Colombian economy. During the 2011-2014 period, close to 53% of the country's exports pertained to oil. On average, income originating in the oil activity accounted for about 16% of the central national government (CNG) revenues and oil royalties gained importance in the territorial entities' income. On its part, foreign direct investment (FDI) in the oil sector attracted a third of the total FDI on average. Investment in the mining sector increased its share in the country's total investment, reaching 15%. Finally, even though this sector is not an important generator of direct employment due to its capital-intensive nature, it nevertheless does have significant links with the economy through demand for numerous services.

In such conditions, the adjustment of the economy shall take place in several fronts. For this process the Government is already making headway in the fiscal field, with the tax reform passed in late 2014 as well as with the announced cuts and deferred expenditures. If the analysts' forecasts on oil prices are fulfilled, possibly a deepening of this adjustment should be envisaged. Compliance with the fiscal rule will be fundamental for achieving a timely and orderly adjustment. On the other hand, a recomposition of growth from the domestic demand to exports will be imperative. For that purpose, the Colombian peso depreciation against the U.S. dollar will be a key element, not only for cushioning the impact upon the public finances but also due to the increasing competitiveness of the export sector when the real exchange rate depreciates, which could encourage greater export diversification. This could contribute to contain the broadening of the current account deficit in the balance of payments in the face of the falling value of oil exports and, at the same time, provide an impetus to product growth.

Albeit a timely adjustment of the economy will help to prevent unsustainable macroeconomic imbalances, it will not impede the effects of the oil shock from being transmitted. It is important to create consensus around the need to adapt to this new reality. Fiscal and monetary policy do not have the power of totally erasing the shock's negative effects, inasmuch as other risky imbalances for the economy might be generated if it does not adapt to the new income path. This is consistent with the announcement made by *Banco de la República* of reducing

its growth forecast for 2015 from 4.3% down to 3.6% (within a uncertainty range between 2.0% and 4.0%) and with a clear communications strategy informing the Colombian society about the scope and possible consequences of the above mentioned shock. In this purpose, this Report to Congress plays an essential role.

On another front of the economic situation, the current trend of rising inflation, that surpassed the target range's ceiling (4.36% vs. 4.0%), contrasts with the behavior of this variable in recent years. The growing inflation is mainly explained by food prices increasing at a faster rhythm, and to a lesser extent, by the depreciation of the peso being partially transmitted to some items of the basic basket. In contrast, the average core inflation measures stood at 3.53%. This reveals that the increase in total inflation, having been pushed up by an abnormal rise in the price of some foods, relates to a hopefully transitory phenomenon.

Inflation expectations show that markets clearly perceive the transitory character of deviation of inflation in relation to its target range. Indeed, for March 2015, the average one and two-year inflation expected by analysts stood at 3.17% and 3.14%, respectively. Those deriving from two, three and five-year TES bonds stand at the upper half of the target range. In addition, it is observed that the longer the term of the inflation expectation, the closer it is to the inflation target (3%).

The evaluation of the inflationary situation presented in this Report to the Congress matches market perception, since for the most part it ascribes the rising consumer inflation to a supply shock in food output, this situation designed to be corrected in the following months. Additionally, the decline in economic activity foreseen for 2015 will help reduce pressure upon prices, as the economy's domestic demand moderates.

The monetary policy stance of keeping the benchmark interest rate unaltered at 4.5% since August 2014 is consistent with this analysis by considering that the current increase of inflation is not propelled by excess demand. Similarly, it envisages that the expected deceleration of the aggregate demand is due to a permanent adjustment to income that should not activate a monetary policy response, since it could bring along other risky imbalances for the economy.



# EXECUTIVE SUMMARY

## INTERNATIONAL CONTEXT

Several key facts characterize the current international context: global economic growth still moving at a slow pace, albeit with substantial differences among countries; a hard fall of oil prices which in net terms has positive effects upon the world economy, but with opposite consequences for oil-importing and oil-exporting countries; a worldwide appreciation of the dollar and low long-term interest rates in the main advanced economies.

### **Advanced Countries**

During year 2014, recovery was seen in the advanced countries' real activity, growing 1.8% compared to 1.3% in 2013, according to the International Monetary Fund (IMF).

Economic growth in this group of countries was led by the United States, with a 2.4% GDP growth in 2014, surpassing the results of the previous year (2.2%). This dynamism was driven by a good performance of consumption and non-residential investment. This greater real activity of the U.S. was reflected in a decreasing trend of the unemployment rate, that shifted from 6.7% in December 2013 down to 5.6% at the end of 2014, a behavior which has continued in the during the first months of this year. Within a context of less unemployment and low inflation, the United States Federal Reserve (Fed) proceeded with the gradual dismantlement of its financial asset-purchase program between January and October 2014. In the same way, it maintained its interest rate at 0.25%, and has suggested that it could start gradually increasing it once the economy's recovery consolidates and inflation shows signs of convergence towards the 2.0% long-term goal.

During 2014 the Eurozone continued to grow at a very slow pace, of barely 0.9% annual, even though performance differed among countries. Spain and Portugal showed signs of recovery, while France remained stalled, and Italy kept on contracting. Germany attained a 1.6% expansion, but with unstable growth rates throughout the year evincing important vulnerabilities. Given the poor economic dynamism and lower prices of basic goods, deflationary

pressures in the Eurozone were accentuated, in such a way that the region's inflation stood in the negative at the closing of the year (-0.2%). In this context, the European Central Bank (ECB) decided to start a quantitative easing policy in order to offer greater stimulus to the economy and to fight deflationary pressures.

For other developed economies, worthy of note is the United Kingdom's performance, increasing its annual growth from the 1.7% in 2013 to the 2.6% the following year. In contrast, Japan's economy stagnated during 2014, which means a regression when compared to the 1.6% annual GDP growth observed in 2013.

As for the international financial markets, rates on U.S. long-term bonds displayed reductions during 2014, and in 2015 so far, although have shown some correction, continue to be at low levels. Rates on long-term bonds of the main countries of the Eurozone had a similar behavior during 2014.

### **Emerging Economies**

Contrasting with better average results for the advanced economies, the emerging economies decelerated in 2014, registering a GDP growth of 4.4%, lower than the 4.7% reached in 2013. By regions, annual GDP expansion in Asia decreased slightly, from 6.6% a 6.5%, while in Latin America it was more marked, shifting from 2.8% down to 1.2%.

In the case of China, GDP growth for 2014 was 7.4%, lower than the observed during 2013 (7.8%). With regard to Latin America, in most countries of the region a low dynamism prevailed. In general terms, export sales remained weak, as a result of decreasing commodity exports and the trade partners' declining demand. Similarly, household and business confidence remained at lower levels, which affected investment and consumption decisions.

### **Prospects for 2015**

For the current year a slight upturn of global growth is anticipated, based on the developed economies performing better, especially the U.S., and on the recovery of some emerging economies. GDP growth in the U.S. would accelerate thanks to the good performance of its domestic demand, in particular of household consumption, that which has been favored by lower costs of fuel and an improving labor market. However, the net effect thereof upon the economy could moderate since investment in the oil sector could decrease due to lower crude oil prices.

In the case of the Eurozone, there are doubts about the effectiveness of the ECB's quantitative easing program for reactivating the lending channel of the region, since several of its countries are heavily indebted already. As for the emerging countries, China's declining economic growth is expected to continue. For Latin America, a heterogeneous behavior is foreseen. Some countries like Peru and Chile, being net importers of oil, have been favored by this commodity's lower prices. Mexico would get a stimulus from the increased dynamism of the U.S. economy. In contrast, Brazil's prospects are rather discouraging, as a result of the fiscal adjustment it would implement and the lower confidence levels of businesses and consumers. Finally, low international oil prices have intensified the structural problems of Venezuela.

### **Oil Prices**

During the second half of 2014, international oil prices displayed a sharp decline, reaching 60% between late June 2014 and mid-January 2015, going from USD 115 per bl to USD 45.8 per bl for the Brent reference. This shock resulted from a combination of factors, among which the consolidation of the increasing oil supply stands out, and to a lesser extent, the decreasing of prospects.

The larger oil supply has mainly been associated to the increasing extraction of non-conventional crude in North America and the decision by the Organization of the Petroleum Exporting Countries (OPEC) of not cutting its production quota. Meanwhile, the weakening demand perspectives are chiefly a result of lower expectations on world economic growth and of fuels being used more efficiently. Added to this, and weakening the demand of oil even further, is the appreciation of the U.S. dollar, which decreases the purchasing power of buyer countries (World Bank, 2015)<sup>1</sup>. Additionally, downward pressures upon prices were accentuated by the liquidation of positions of futures and options contracts by agents of the financial market.

## **THE COLOMBIAN ECONOMY**

### **Economic Activity in 2014**

In 2014 the Colombian economy grew 4.6%, figure slightly lower to the observed in 2013 (4.9%). In the first half of the year, factors such as the ample international liquidity, the high demand for Colombian assets, an improving labor market and the effects of the previous year's expansive monetary and fiscal policy brought high growth of domestic demand, a GDP expansion of

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<sup>1</sup> "Understanding the Plunge in Oil Prices: Sources and Implications", Ch. 4, Global Economics Prospects, January, Washington, D. C.

over 5%; also, these factors generated an appreciation of the exchange rate and an increase in the balance of payments' current account deficit. During this period the dynamism of domestic demand boosted imports. On the other hand, low growth of several of our trade partners, along with some supply shocks, affected the tradable sector. As a result, net exports slowed down product growth.

From the year's third quarter onwards, a change in external conditions, especially regarding oil prices, brought a depreciation of the exchange rate. Nevertheless, this change in relative prices did not come to be reflected either in a sharp deceleration of the domestic demand or an increase in exports. The low dynamism shown by net exports was reinforced by a fall in the terms of trade; the balance of payments' current account deficit remained at historically high levels during the last few months. The above was coupled with a slowdown in economic growth by shifting from 6.4% in the first quarter to 3.5% in the last quarter of the year.

The role played in 2014 by public consumption and investment in civil works stood out; these items grew at a faster pace than the rest of the economy, greatly contributing in this way to the expansion of GDP. Likewise, investment in housing brought dynamism to economic activity, but to a lesser extent than in 2013.

Additionally, high confidence levels, decreasing unemployment rates and improvements in the quality of employment fostered the good performance of household consumption, this in an environment of relative credit availability at low interest rates.

On the supply side, the most dynamic branches were the non-tradable sectors (construction, commerce and financial services). On their part, the manufacturing and mining sectors displayed a weak behavior, even with annual contractions being observed for some quarters. Most sectors decelerated during the second half of the year.

### **Prospects for 2015**

Projections for 2015 suggest a 3.6% GDP growth, within an uncertainty range between 2.0% and 4.0%, as the most likely scenario. The slowdown of the economic activity compared to the previous year would be mainly related to the falling international oil prices; the adjustment of public finances; the global economy's performance and the effect upon capital flows of a possible increase in interest rates in the United States. Likewise, availability of external financing and the confidence of economic agents will influence this outcome.

The effects of the declining international oil prices are transmitted to the national economy through various channels, the most important of which is the decrease in the terms of trade. This reflects in a deteriorating national income, as well as in the worsening of the commercial and fiscal balance. With falling oil prices, capital inflows are also reduced and particularly those of FDI directed at the oil sector. All of the above may increase the country's risk premiums. In addition, this sector is linked to other branches of the economy through the buying and selling of supplies and final goods. Besides, it is a capital-intensive activity contributing to the country's gross capital formation and, to a lesser extent, to the labor market.

The depreciation of the nominal exchange rate taking place within a regime of flexible exchange rates contributes to cushion some of these effects. On the one hand, it partially compensates for the loss of value of oil exports, which helps sustain the sector's profitability, thus alleviating public finances. On the other hand, as the nominal depreciation translates into real depreciation, it causes a recomposition of the demand towards locally produced goods and the consumption of imported goods is discouraged. Likewise, real depreciation improves the competitiveness of Colombian exports and of local production competing with imports. As long as the domestic demand responds to this stimulus, there will be a recomposition of the supply toward tradable goods. In this manner, real depreciation through its influence on the composition of the aggregate demand and supply of the economy plays an important role in softening the effects of falling oil prices on economic growth.

### **Labor Market**

Throughout 2014, a substantial reduction in the unemployment rate was observed, which stood on average at 9.1% in the national total and at 9.9% for the main thirteen metropolitan areas. These values are 0.5 and 0.7 percentage points (pp) respectively, lower than those registered on average for 2013. Labor market dynamics can be explained by an increase in workforce demand (measured by the employment rate) greater than the growth of supply (as measured by the labor force participation rate).

Furthermore, an improvement in the quality of employment was observed, since most of the employment generated in 2014 was waged and growing at an annual rate of 4,5% in the thirteen areas. This allowed for the percentage of formal workers in the thirteen areas to stand at an average 51.5%, a 1.02 pp increase compared to the same period of the previous year. The advances made in quality of employment are reflected in greater job stability, higher remunerations and better access to credit; this in turn drives up consumer confidence and household consumption.

## **Inflation**

At the end of 2014 annual consumer inflation stood at 3.66%, within the upper half of the target range (2.0% a 4.0%) established by the Board of Directors of *Banco de la República* (BDBR). During the course of the previous year, inflation expanded constantly from the low level observed at the end of 2013 (1.94%). Likewise, core inflation, which stood at 3.06%, displayed an increase, albeit of a lesser magnitude than that of total inflation.

This behavior was not all that surprising. Both the technical staff of *Banco de la República* and market analysts expected inflation to converge towards 3.0%, since the decrease observed a year ago had been originated in part by transitory shocks with a one-time-only impact on price levels. Those ranged from a cut on indirect taxes to raw materials, food and fuels, to exceptional weather conditions improving the agricultural supply. In addition to the above, there was a broad supply of specific food products and cuts in several utility bills ordered by local authorities. As these effects disappeared in 2014, prices of various components of the family basket, food and regulated in particular, tended to show positive adjustments more in line with the long-term inflation target.

This increase of inflation was likewise consistent with a more dynamic domestic demand and an output level converging toward the full use of its installed capacity. This was compounded with the depreciation of the peso in the second half of the year, which transmitted partially to the annual change of the tradable goods price index. Despite this, inflation expectations, a key element to ensure the fulfillment of the long-term target, remained anchored at 3.0% throughout the year.

In the first months of 2015, annual consumer inflation has continued to increase. Nevertheless, it is expected to start decreasing between the second and third quarters to the extent that pressures of temporary nature lessen. Additionally, if forecasts of lower GDP growth in 2015 hold true, the economy shall face some excess in its productive capacity serving to discard important pressures originating in demand. For the same reason, the rhythm of job creation will tend to be slower than in prior years by limiting rises in labor costs. This trend would be maintained in 2016, if inflation keeps on converging towards the target.

Likewise, it can be predicted that the accrued depreciation of the Colombian peso will continue to be transmitted to consumer prices throughout 2015. Nevertheless, a moderate transmission is to be expected according to the results presented in the Box 2 of this Report, and in line with past experiences of Colombian peso depreciation episodes in a context of economic slowdown.



## **Monetary Policy**

Between April and August of 2014, the BDBR raised the benchmark interest rate five times, by 25 bp each month, having considered that the greater dynamism of the internal demand, coupled with an increasing and higher-than-expected inflation, was consistent with a less expansive interest rate. The fall in oil prices being observed since mid-last year caused uncertainty about the solidity of economic growth towards the future. Additionally, few pressures upon the demand were registered along with expectation inflations that remained anchored in the target. Face with these circumstances, after assessing the risks, the BDBR decided to keep interest rates unaltered for the last four months of the year and the first months of 2015. This stance was deemed adequate, even having taken into account that some proportion of the depreciation of the peso would possibly transmit to the prices of tradable goods.

## **Interest Rates and Credit**

The 125 basic point (bp) increase in the benchmark interest rate between April and August 2014, determined by the BDBR, reflected partially in the deposit and borrowing rates of the financial system at the end of the year. This way, between April and December 2014, interest rates on fixed-term deposits (DTF) increased by 53 bp, 25 bp for the aggregate deposit rate on certificates of deposit (CDT) and 58 bp for commercial loans. Also, it was observed that interest rates on consumer loans decreased by 49 bp and those on housing remained stable. In January 2015, deposit interest rates, commercial and consumer loan interest rates increased, which shows that the transmission continued. In real terms, all loan interest rates remain at levels below their historical averages calculated from 2000 onwards (except for credit cards), indicating a rate structure which offers a stimulus to the economy.

With regard to the public debt market, in 2014 rates on short-term national Government treasury bonds (TES) increased by 72 bp compared to the 2013 closing. On their part, rates on medium and long-term TES rose as well, although in magnitudes lower than those short-term. Increases in rates for these maturities were registered primarily in December. Several factors influence the interest rates on TES, especially the country risk assessment. In this regard, uncertainties about the effect of the decline of oil prices upon economic growth and the future fiscal situation could have motivated the sale of these securities towards the end of the year, causing their depreciation (and, as a counterpart, bringing about an increase of their interest rates). Nevertheless, as with other emerging countries' bonds, prices of TES recovered. This is explained by continuing conditions of ample global liquidity, given the stimulus measures announced by the ECB and China's monetary authority and the expectations about the Federal Reserve keeping the policy rate at expansionary levels for

a more prolonged period. The change in the country's monetary policy stance added to the foregoing, as already explained.

The financial system's gross portfolio balance at the closing of 2014 showed a 12.8% annual change, amounting to COP 297.653 trillion (t). In real terms, the portfolio in local currency grew at a pace similar to last year's (10.8% on average), since the greater average nominal growth was explained by the increase in inflation. By type of loans, those granted to businesses (commercial and microcredit), as well as mortgage loans, displayed acceleration in the first half of the year, especially during the second quarter, and a deceleration in the second half. This way, loans to businesses expanded by 13.6% in December 2014, after having grown at an average 16.1% rate in the second quarter of the year. In turn, the expansion rhythm of the securitization-adjusted mortgage portfolio declined from its 17.1% average in the second quarter to 15.3% in the last three months of the year. This behavior is consistent with the aforementioned increase in the benchmark interest rate and its transmission to market rates. With regard to the consumer portfolio and in contrast with other types of loans, the percentage change was stabilized between April and September 2014 (11.8% on average) and accelerated in the fourth quarter by growing 12.8% on average, in this way reversing the downward trend displayed since the beginning of year 2012. This behavior is consistent with the partial response of the interest rate on consumer loans, towards the end of 2014, to the change in the monetary policy stance.

### **Financial System Risks**

A regular assessment of risks to which the main financial intermediaries are exposed is a task constantly performed by *Banco de la República* in its aim of preserving the country's financial stability. This assessment is submitted in this Report as updated to late 2014. The exposure to credit risk and the funding of institutions belonging to the financial system are examined therein, as well as a risk analysis performed in the TES bond market. In 2014, an increase in the default indicator, with and without penalties, as well as a relative stability in the quality indicator stood out. Also, provisions remained at levels allowing for a full coverage of the past-due portfolio. As for the liquidity indicator, it suggests that the financial system has liquid resources to adequately meet its short-term contractual and non-contractual obligations. On its part, an analysis performed on a group of real sector firms deemed to be exposed to nominal depreciation due to exchange mismatches reveals low participation of this group in the balance of the credit establishments' commercial portfolio. Finally, the exposure of the financial system to the oil firms in the country can be seen. All of the above evidence the solidity of the financial system to cope with the current situation.

## External Balance and Perspectives for 2015

During 2014, the Colombian economy registered a current account deficit of 5.2% of GDP, larger than that observed one year earlier (3.2% of GDP). This increase originated mainly in the negative balance of the goods account, in contrast with the surplus obtained in 2013. The trade deficit resulted from a decrease in the value of exports (-5.5%) and an increase of imports (8.0%). The decreasing external sales were particularly due to lower international prices of the main mining products, the sharp decline of oil prices in the second semester of the year standing out. Besides, the closing of the Cartagena Refinery and the restrictions to coal exports in some ports at the beginning of 2014 deepened the fall in value of foreign sales of these products.

The decline in mining exports was partially offset by the increase in the exported values of agricultural products (coffee, flowers and banana), which, overall, recorded an annual growth of 18%, while the foreign sales of industrial products decreased by an annual 4.8%. On their part, during 2014, imports were particularly propelled by larger purchases of supplies and capital goods for the industry, as well as fuels and lubricants and durable consumer goods. Lastly, the lessened remittance of profits by companies with foreign capital in the mining and energy sector prevented further deterioration of the current account balance.

The current account deficit of 2014 was financed by capital inflows registered in the financial account (not including reserve assets) amounting to USD \$23.949 b (6.3% of GDP), higher by USD \$5.167 b to that registered in 2013. These capital inflows corresponded to USD \$36.260 b of foreign capital inflows, outflows of Colombian capital amounting to USD \$12.311 b and to USD \$4.437 b of accumulated foreign reserves. In particular, inflows of FDI amounting to USD \$16.054 b were registered, i.e., USD \$146 m less than in the year before (-0.9%). 40% of the FDI flows was received by the oil and mining sector, 46% jointly by companies operating in industrial activities, transportation, communication, financial and business services, and the remaining 14% by commerce, hotels, and electricity companies.

For 2015, the external balance forecast is framed in a context of recovering advanced economies but lower commodity prices. In addition, for economies being net exporters of primary products, price shocks would entail a decline in growth. In this scenario, the sharp fall of oil prices and its implications in the price dynamics of other basic goods will have a significant effect on the foreign sales of traditional products and the country's external accounts. On the contrary, perspectives of improvement for the U.S. economy in particular, will mean better demand conditions for non-traditional Colombian exports, which would additionally be favored by the U.S. currency appreciation process.

## Exchange Rate and Exchange Policy

The recovery of the U.S. economy and the slowdown in other countries resulted in a strengthening of the dollar against most currencies of both developed and emerging countries. Thus, for example, in 2014 a 13.6% depreciation of the yen, 13.5% of the euro and 6.0% of the sterling pound against the dollar was observed. Similarly, all Latin American currencies depreciated as follows: Argentine peso, 31.2%; Colombian peso, 24.2%; Chilean peso, 15.3%; Mexican peso, 12.7%; Brazilian real, 12.6%, and Peruvian sol, 6.9%.

However, the behavior of exchange rates in Latin America was not uniform in the course of the year. During the first semester, appreciations were registered as resulting from a reduction in risk premiums for these economies. In the case of Colombia, greater valuations associated with inflows of portfolio capital were observed due to the boost given by JP Morgan to the weighting of the country's peso-denominated debt in the emerging bond market indices. In contrast, during the second half of the year, most currencies of the countries in the region depreciated significantly against the U.S. dollar. Among the reasons for this trend, the falling international prices of raw materials and the expectations about an increase of interest rates in the United States should be mentioned. As for the Colombian peso, during the second semester a strong depreciation above that of other Latin American currencies took place. Although some commodities such as silver, gold or copper showed falling prices, none of them could compare to the decline of oil prices by which Colombia is particularly affected among countries with flexible exchange rate regimes.

Changes in the nominal exchange rate are not necessarily mirrored by the real exchange rate, since the latter is adjusted by the behavior of internal and external prices. Thus, during 2014, the various RER indices for Colombia showed an average annual depreciation between 3.0% and 4.1% when compared to that of our major trade partners, depending on whether producer or consumer prices are used, and of 3.9% against our coffee, banana, flower, and textile competitors in the United States. This shows that peso depreciation has, to some extent, resulted in a competitive gain for Colombia.

During 2014 *Banco de la República* continued with the foreign reserves purchase program, acquiring in the exchange market foreign currency amounting to USD \$4,057.6 b through the direct purchase auction mechanism. With this, at the closing of the year, gross foreign reserves reached USD \$47,328.1 b. At their December meeting, the BDBR announced that, considering the high levels of coverage against external liquidity risks as well as the exchange market changes, it would not continue the foreign reserves purchase program.

## FOREIGN RESERVES MANAGEMENT

In a manner consistent with Act [“Law”] 31/1992, *Banco de la República* administers foreign reserves in the public interest, in order to benefit the national economy and with the purpose of facilitating national payments abroad. At December 2014 net foreign reserves reached USD \$47.32309 b. 94.9% of foreign reserves pertains to the investment portfolio consisting of investments in financial instruments in the international market, and the remainder to the position in the IMF (3.09%) as well as contributions to the Latin American Reserve Fund (FLAR) (1.06%) and investments in gold (0.84%). Portfolio’s investments are mainly made in U.S. dollars (87.8%), Canadian dollars (4.8%), Australian dollars (3.8%) and pounds sterling (1.9%).

The risk of the reserve investment portfolio is low, and this reflects in the fact that its 95.41% is invested in government-issued or quasi-sovereign bonds<sup>2</sup> and 97.87% of investments have ratings either equal to or higher than AA. In 2014, the yield of reserves was affected by the international situation, particularly by low interest rates in countries where investments are made, and by the appreciation of the U.S. dollar vis-à-vis major currencies, this having decreased the value in U.S. dollars of investments carried out in other currencies.

## FINANCIAL SITUATION OF BANCO DE LA REPÚBLICA

The income statement of *Banco de la República* is determined to a great extent by monetary income and expenditures, which are associated to its carrying out of central banking functions and are mainly determined by variables not under its control, such as external interest rates, fluctuations in the market prices of securities in the investment portfolio, the TES portfolio and gold, and the behavior of currencies in which foreign reserves are invested.

The Bank’s By-laws envisage the constitution of statutory reserves in order to absorb possible losses (Decree 2520/1993). These reserves are composed of the year’s profit when losses are projected for the next two years (monetary and exchange stabilization reserve) and of the profit generated by the exchange spread between the dollar and other reserve currencies and the foreign currency-denominated assets and liabilities (currency fluctuation reserve).

In 2014 the bank registered a negative operating result of COP \$1.1662 t, chiefly explained by the reserve currencies’ depreciation against the dollar,

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2 This term refers to the debt issued by a non-governmental entity, implicitly guaranteed by a government. It groups supranational institutions (for example, World Bank, Andean Development Corporation) and government-funded agencies (for example, Fannie Mae or Freddie Mac in the United States).

which has affected revenue for yield of foreign reserves and by operations of contraction performed to counteract the inflationary effect of foreign currencies<sup>3</sup>, which has generated costs for the Bank. Losses attributed to the spread between the dollar and the reserve currencies (COP 1.0551 t) were covered by the currency fluctuation reserve and the remainder, once deducted the reserve for net investment in cultural activities, was covered by the CNG (COP \$123.9 b).

For 2015 the Bank's budget contemplates a COP \$531.3 b negative operating result. The budget does not take into account either the exchange rate fluctuations of the reserve currencies against the dollar (exchange spread) or the price of gold, variables that could affect the end result due to their volatility<sup>4</sup>.

It should be mentioned that the difference between losses observed in 2014 (COP \$1,166.2 t) and those budgeted for (COP \$531.3 b) is explained by: i) a negative exchange spread in 2014, caused by currency devaluation against the dollar amounting to COP \$1,055.1 t, while neither expenditures nor income are included for this reason in the 2015 budget; ii) a monetary component budgeted for 2015 of net expenditures amounting to COP \$159.8 b, COP \$348.0 b more than in 2014, primarily due to a lower net income caused by exchange rate differences (COP \$303.9 b)<sup>5</sup>, as well as by higher net sterilization expenditures (COP 119.4 b)<sup>6</sup>, and iii) the net result of the corporate aggregate generating expenses higher by COP 72.1 mm than registered in 2014.

Finally, gross foreign reserves, the Banks's main asset, reached COP \$113.230 t (USD \$47.328.1 b) at December 2014, amount that includes foreign currencies purchases amounting to USD 4,058 b made the previous year. The monetary base, the Issuing Bank's main liability, displayed a 7.0% increase compared to the 2013 closing, amounting to COP \$69.671 t at December 2014. Assets, on their part, amounted to the sum of COP \$31,930 t in December 2014, item that incorporates the COP \$21,295 t increase in the Exchange Adjustment account, resulting from the effect upon the balance of foreign reserves of the depreciation of the peso.

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3 Between January 2007 and December 2014, the Bank purchased foreign currency amounting to USD 29.482 b. In 2014 it bought USD \$4.058 b.

4 In February 2015 the exchange spread result was -COP \$668.6 b.

5 Exchange differences include the exchange effect upon the Bank's assets and liabilities in foreign currency other than foreign reserves, such as the contributions and obligations with the Inter-American Development Bank (IDB), International Bank for Reconstruction and Development (IBRD), Andean Development Corporation (ADC) and Bank for International Settlements (BIS). Income registered in 2014 is explained by the 24.2% observed in that year.

6 It includes changes in expenditures of the monetary component (COP \$65.3 b) for remunerated deposits of monetary control, deposits for monetary regulation operations and remunerated deposits to the CNG; income for appreciation of TES held by *Banco de la República* (-COP 44.2 b), and revenue from repos (-COP \$9.9 b).





# I. INTERNATIONAL CONTEXT

*In 2014 the global economy expanded at a slow pace similar to that observed in 2013. Unlike in prior years, the above results from a recovery of real activity in the developed economies, together with a moderation in the emerging economies, especially those of Latin America. The economic event having the most importance from Colombia came from the fall of oil prices that, according to figures at January 2015 was an unanticipated decline of close to 60% from its highest price in June 2014. This strong downturn mainly originated in a greater global oil supply, and to a lesser extent, in lower perspectives of demand for this commodity.*

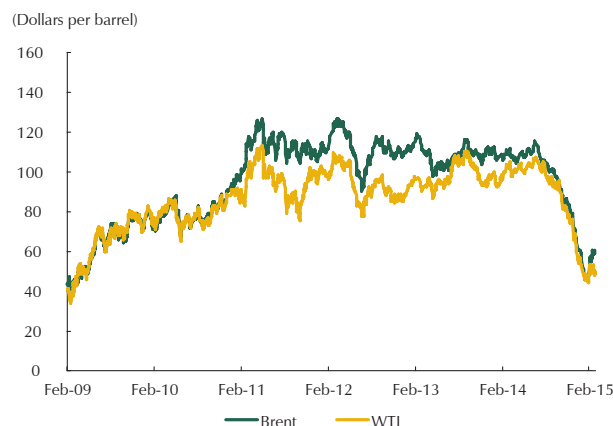
In 2014 the global economy expanded at a slow pace similar to that observed in 2013. Unlike in prior years, a recovery of real activity of the developed economies was registered, while the emerging ones decelerated. According to the International Monetary Fund (IMF), the advanced countries grew 1.8% in annual terms, an improvement when compared to the 1.3% of last year. In contrast, the emerging economies' annual gross domestic product (GDP) growth shifted from 4.7% in 2013 to 4.4% twelve months after.

However, growth of the main developed economies showed uneven results. On the one hand, in the United States and the United Kingdom a significant recovery in real activity was observed, thanks to favorable dynamics of their domestic demand. On the other hand, the Eurozone and Japan performed poorly during the year, as a consequence of low dynamism of investment and consumption. Meanwhile, some emerging countries showed a slowdown of their economic activity. For example, an important moderation of fixed-asset investments was experienced in China, especially of those associated with the housing market, while growth in Latin America stood at levels below the observed in previous years.

As for prices of raw materials, the most important economic event resulted from the collapse of oil prices, which, according to data at January 2014, fell by 60% from their highest value in June 2014 (USD \$115.4 per barrel); prices

*Oil prices decreased about 60% between June 2014 and January 2015, mainly as a result of greater global oil supply.*

Graph 1  
International Oil Prices (Brent and WTI)



*Prices of other mineral commodities exported by Colombia such as coal and nickel, showed a decline during the second half of 2014.*

had a slight, partial recovery in February (Graph 1). The extent of this decline was not anticipated, and mainly originated in the increasing global oil supply, and to a lesser extent, the weakening demand expectations for this commodity. This way, during 2014 global oil production registered annual growth (2.1%) higher than the demand (0.7%).

The increase in the world's crude oil production is chiefly a result of a higher supply in North America, due to a rise in the extraction of unconventional crude oil. This expansion was driven by high oil prices observed in previous years that helped covering the increased costs associated with the use of new technologies such as hydraulic fracturing

and horizontal drilling. Additionally, production stability was seen in Russia and member countries of the Organization of Petroleum-exporting Countries (OPEC), despite internal conflicts in some of these nations. Libya exhibited partial recovery of its production while in Iraq it attained historically high levels by the end of 2014.

Similarly, at its November 2014 meeting, the OPEC decided to maintain its production levels, despite the price decline observed up to that moment, which modify expectations about the future crude oil supply and helped to lower prices. Some institutions, such as the IMF and the International Energy Agency (IEA), have posed that the main members of the OPEC implemented this strategy of not to cut production in order to maintain their market share. This also would seek to stem the growing supply of unconventional crude oil, which, due to higher extraction costs, may cease to be profitable as the barrel sales value decreases.

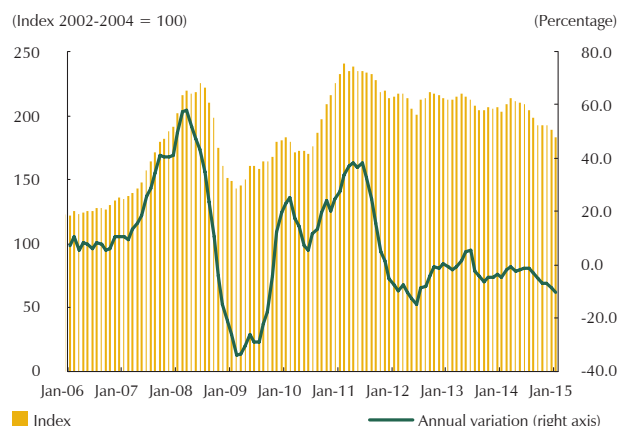
With regard to oil demand factors, the emerging economies' deceleration, together with the weak performance of the advanced economies (particularly in the Eurozone), led specialized agencies<sup>1</sup> to revise downwards their projections on oil demand for 2014 and 2015.

For other mined commodities, such as coal, nickel and copper, favorable supply conditions, coupled with a modest expansion of the global demand, caused a decrease in their international prices, thus affecting export revenues of some producer countries. As for food, good harvests have encouraged a high accumulation of stocks, which, together the lower demand of biofuels, have

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<sup>1</sup> For example, between July and December 2014 the IEA revised downwards its forecasts for global crude oil demand in 2014, from 92.7 million barrels per day (mbpd) to 92.4 mbpd, and from 94.1 mbpd to 93.3 mbpd in 2015.

Graph 2  
International Food Prices



Source: United Nations' Food and Agriculture Organization.

prolonged, the price decline initiated the previous year (Graph 2).

The falls in commodity prices, especially those for oil, uncertainty about the time at which the Federal Reserve (Fed) will increase interest rates in the United States, the deflationary risks in the developed countries and the prospect of an asset purchase program by the European Central Bank (ECB), among other factors, were the cause for the financial market's volatility indicators to increase during the last part of the year. In this context, an appreciation of the dollar against most of the world's currencies was observed, though it was much more marked when compared to the currencies of oil-producing

countries. In general, increasing risk premiums and declining stock indices for commodity-exporting economies were observed, which were greater for crude oil producers.

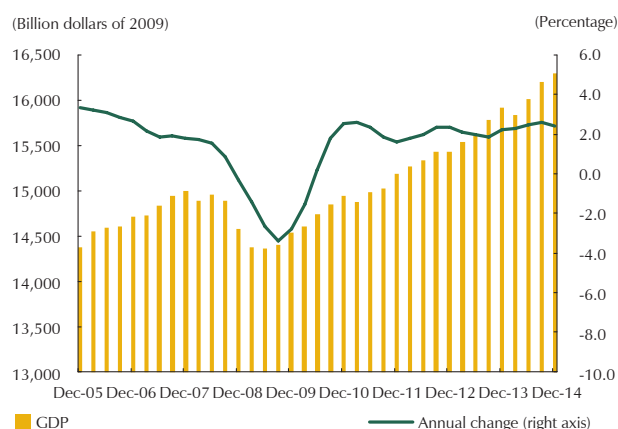
## A. PERFORMANCE OF DEVELOPED ECONOMIES IN 2014

In 2014 the economic expansion of the main developed economies was led by the United States, which showed a sizable improvement of its real activity. The United Kingdom equally displayed a significant increase in its growth rate. Nevertheless, very weak dynamics were observed in the Eurozone, while Japan decelerated significantly.

During 2014 the United States economy showed a favorable behavior, mainly driven by the good performance of consumption and non-residential

investment. On the other hand, the fiscal adjustment was not as much an obstacle to economic growth as it was last year. In this context, GDP growth was 2.4%, a figure that represents an improvement compared to last year (2.2%) (Graph 3). It should be noted that in the first three months of the year, this measure was affected by a strong contraction of economic activity in quarterly terms, generated by temporary shocks associated with unusually low temperatures and a sizable reduction in stock levels.

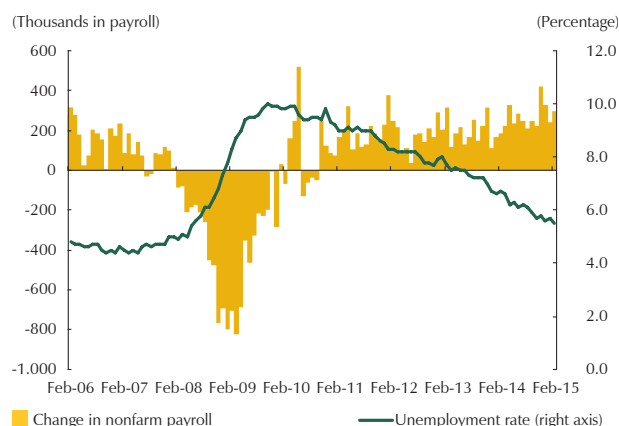
Graph 3  
United States Real GDP



Source: DataStream.

The good performance of the U.S. real activity during the year allowed for its labor market to continue its recovery. Job creation has displayed a very positive behavior: non-agricultural payrolls increased at a monthly average rate of 260,000 during the

Graph 4  
Unemployment Rate and Job Creation in the United States



Source: Bloomberg.

year, the best figure since 1999. Consequently, the unemployment rate showed a clear downward trend, shifting from 6.7% in December 2013 down to 5.6% a year after (Graph 4). This dynamic has been maintained during the first two months of 2015.

Other indicators offering information about the state of the job market and being monitored by the Fed have shown marked improvements during the year: for example, the long-term unemployment<sup>2</sup> and the underemployment rate<sup>3</sup> have decreased considerably and suggest a decline in excess capacity and an improvement in the quality of jobs being created.

Furthermore, annual inflation stood at below the Fed's long-term goal (2%) during the second half of the year. This is primarily explained by the decline of fuel prices and the appreciation of the dollar against the world's main currencies, which in relative terms, lowers the price of imported goods. Meanwhile, basic inflation measures, which exclude volatile elements such as food and fuels, remained relatively stable at around 1.7%.

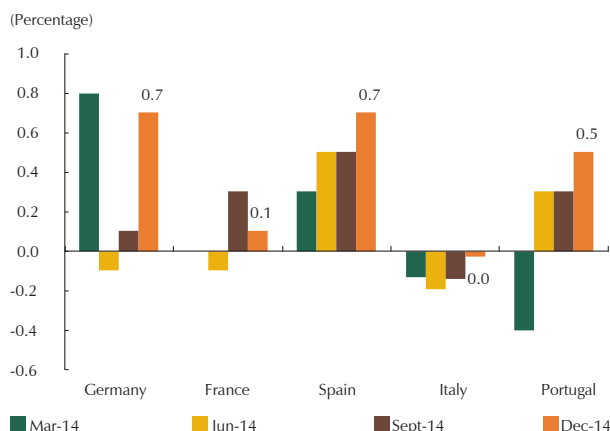
In this context, the Fed performed a gradual dismantlement of its asset purchase program between January and October 2014, just as announced at the end of the previous year. Likewise, it maintained its interest rate at 0.25%, giving hints about its gradual increase once the economic recovery continued with inflation showing signs of convergence towards its long-term objective (2.0%) and unemployment falling below 6%. Various analysts believe this process will begin during the second half of 2015.

On the other hand, The Eurozone's GDP displayed very slow growth during the year, having expanded by 0.9% in annual terms. The outlook by country is a heterogeneous one (Graph 5). The good behavior of the countries in the periphery stands out, their recovery being a result of structural reforms adopted in prior years. It is worth highlighting the case of Spain, where annual GDP growth for the entire 2014 was 1.4%, the highest since 2007, as driven by its domestic demand.

<sup>2</sup> Number of people unable to get a job for over 27 weeks as a proportion of the total unemployed population.

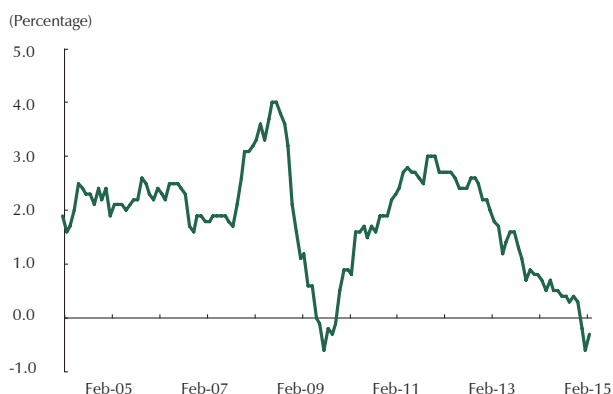
<sup>3</sup> Total number of people employed part-time claiming to be eager to work full-time, and of people outside the labor supply willing to work in the event of getting a job (marginally tied to the labor market), as a proportion of the labor force and of those marginally linked to the labor market.

Graph 5  
Quarterly Real GDP Growth for Some Countries in the Eurozone



Source: Bloomberg.

Graph 6  
Annual Inflation in the Eurozone



Source: Bloomberg.

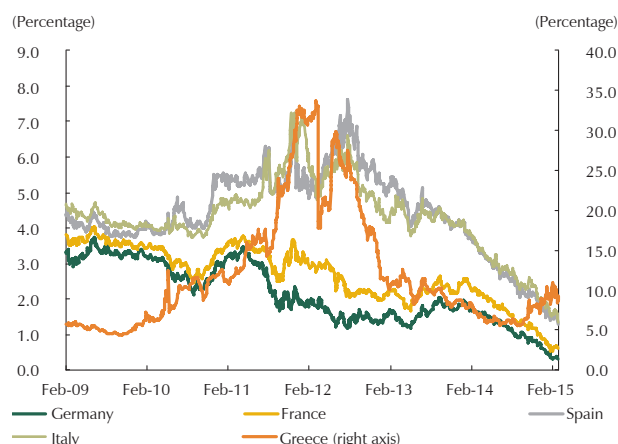
Moreover, the dynamics of German economy were uneven during the year, with a good performance in the first quarter, then showing modest rates in the course of the following six months as a consequence of the weakened demand from its major trade partners and low confidence levels among consumers and entrepreneurs. In the last quarter of 2014, some recovery was observed thanks to favorable investment and consumption dynamics, for which reason growth for the entire year of 2014 was 1.6%. Meanwhile, France grew at low rates and Italy kept contracting since consumption in both countries increased very slightly, while investment decreased.

Lower prices of commodities heightened the deflationary pressures in the Eurozone, in such a way that in February 2015 annual inflation stood in the negative (-0.3%), which represented a sizeable decline compared to last year's data (0.7%) (Graph 6). Annual inflation, excluding food and fuels, decreased slightly less, (10 basis points) registering 0.6%, and staying far from the ECB's medium-term target (a lower but close level to 2.0%). In this context, a significant reduction of medium-term inflation expectations has been observed, since they stood at around 1.7% in late 2014, after having reported 2.2% in the previous year.

In the second part of the year, the ECB took various actions as to stimulate the economy and to fight against deflationary pressures. On the one hand, targeted long-term refinancing operations were adopted (TLTRO), to grant liquidity at lower interest rates to banks that will channel loans to the non-financial corporate sector and to households, excluding mortgages. In addition to this, an asset purchase program amounting to EUR 60 billion per month in covered bonds, asset-backed securities and, starting in March 2015, in sovereign bonds. The program will extend into September 2016. Thanks to this, interest rates on debt securities of the main European economies decreased markedly during the year (Graph 7).

In other developed economies a heterogeneous behavior is observed as well. The United Kingdom's economy saw its annual growth go from 1.7% in 2013 to 2.6% a year after. This good performance of real activity was driven by the domestic demand, mainly by investment. In contrast, Japan's economy stagnated during 2014, which compares to the annual 1.6% growth observed

Graph 7  
10-Year Interest Rates on Public-Debt Securities of Some Countries in the Eurozone



Source: Bloomberg.

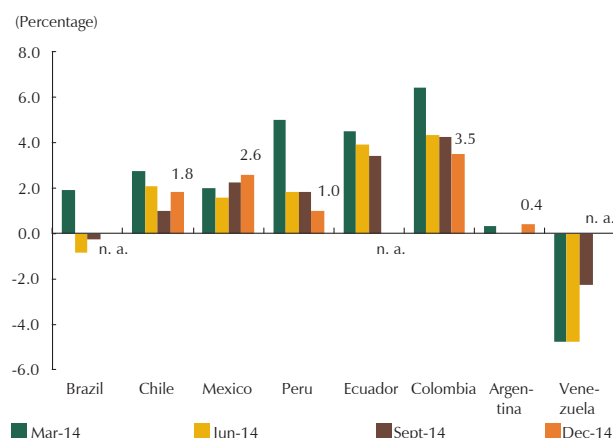
twelve months ago. This decrease is explained, to a greater extent, by the negative impact of the consumer tax increase upon household spending. In this scenario, Japan's central bank increased the amount of its asset purchase program, looking to invigorate the economy and to slow down deflationary pressures.

## B. PERFORMANCE OF EMERGING ECONOMIES IN 2014

Growth of the emerging economies slowed down compared to what was observed in 2013. According to the IMF, this group of countries expanded by 4.4%, this figure being slightly lower than that reported one year earlier (4.7%). By regions, Asia's annual growth experienced a minor decrease from 6.6% to 6.5%, while moderation in Latin America was more marked, shifting from 2.8% to 1.2%.

In the case of China, GDP increased 7.4% for the entire 2014, standing below the target set by the government (7.5%) and the figure observed in the previous year (7.8%). This slowdown took was largely the consequence of, significant moderation in fixed-asset investments that shifted from a 19.6% increase in annual terms in December 2013 down to 15.7% the following year. In order to counter this trend, its government and central bank have put focalized stimulus plans into place, despite the existence of possible imbalances in some sectors (real estate and financial).

Graph 8  
Annual Growth for Some Latin American Countries' Real GDP



n.a.: Not available  
Source: Bloomberg.

As for Latin America, the more recent indicators of real activity show that the countries of the region continued to display very low dynamism during the fourth quarter. In general terms, foreign sales remained weak, as a result of the price drop of the main basic export goods and the weakening demand from trade partners. Likewise, consumer and business confidence has remained at low levels, which has affected investment and consumption decisions.

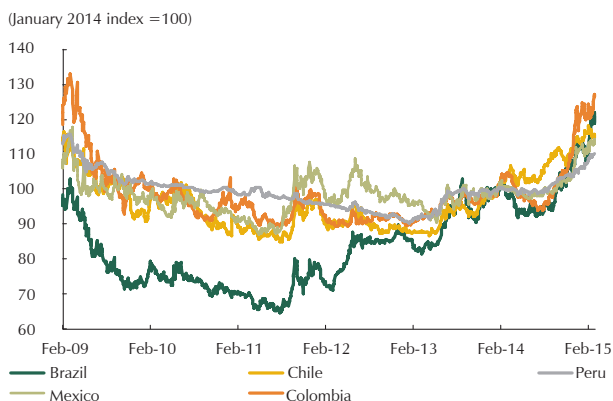
Besides less favorable external conditions, other idiosyncratic factors explain the low growth registered during 2014 (Graph 8). In Peru, for example, less spending by local governments was registered; the fishing sector, one with important links with the industry, has been affected by weather

events and some mining projects were delayed because of licensing problems. Meanwhile in Brazil, the uncertainty brought by the presidential elections and the need to conduct a fiscal consolidation, partly explain its economic stagnation. Finally, it is worth highlighting the case of Venezuela, where the sharp decline of oil prices has deepened the downturn of real activity in a high inflation context.

With regard to inflation behavior in the emerging economies, it continued to be uneven. On the one hand, in Brazil, Peru and Chile upward pressures bringing annual inflation over the target range of their respective central banks were observed. It is worth mentioning that especially in the case of Chile, a sizeable part of the increase can be explained by the depreciation of its currency. On the other hand, in China, India and Korea, lower commodity prices generated a clear downward trend of annual inflation, particularly during the second half of the year.

In this context, their central banks, except for Brazil's, lowered their benchmark rates. In the case of Chile and Peru, this happened because the price increase was deemed to be a transitory phenomenon, since inflation expectations remain anchored around the target.

Graph 9  
Exchange Rate Indices of Some Latin American Countries



Source: Bloomberg.

Finally, it is worth stressing that the currencies of Latin American countries depreciated during 2014 (Graph 9). The Colombian case was somehow different to that of its neighbors, since in the first part of the year, JP Morgan announced that it would boost the weighting of Colombia's bonds in the GBI<sup>4</sup> emerging debt indices, whereby portfolio capital inflows were encouraged, thus strengthening the Colombian peso. However, in the second half of the year, the decline of oil price and, to a lesser extent, the end of the rebalancing of portfolios belonging to investors following the JP Morgan's benchmark indices, brought a significant the Colombian peso to appreciate considerably. This way, the Colombian currency stood among the economies that weakened the most between the closings of 2013 and 2014 (23.1%).

### C. PROJECTIONS FOR 2015

For 2015 a slight upturn in global growth is anticipated, based on the developed economies' performing better, especially the U.S., and on the recovery of some

4 For a detailed explanation, see Box 2 pp. 90-94, "Analysis of the impact in Colombia of JP Morgan's recomposition of emerging countries' local debt indices", Report to Congress, July 2014.



*For 2015, it is expected a slight recovery in global growth, thanks to the improved performance of developed economies, especially the United States, and to the recovery of some emerging countries.*

*The main downward risks come from a possible underestimation of the impact of falling commodity prices upon the emerging economies exporting these resources and the uncertainty about how the financial markets will react to the increase of interest rates in the United States.*

emerging countries. Thus, the expansion of the United States GDP would accelerate thanks to the good behavior of its domestic demand, especially of household consumption. The latter would be highly encouraged by a reduction in fuel prices and the improving labor market, both of which would increase the family income available. Nevertheless, the net effect upon the economy may moderate due to a decline of investment in the oil sector caused by lower prices of crude oil.

In the case of the Eurozone, lower fuel prices would encourage household spending to some extent. However, due to the greater rigidity of these prices and less dependence of oil in Europe, the positive effect will be weaker than in the United States. On its part, the actions taken by the ECB should boost a depreciation of the euro against the dollar and the pound sterling, which would give an extra push to the region's foreign trade. Nevertheless, according to some analysts, the quantitative easing program may not have an important effect on the credit channel of the region, as a result of the high degree of leverage. Likewise, some countries such as France and Italy would remain stagnant on account of the structural competitiveness problems they still suffer from.

As for the emerging countries, in China the slowdown of economic growth is likely to continue. For the case of Latin America, in 2015 the behavior among countries is expected to be heterogeneous. On the one hand, Peru and Chile would show some recovery, resulting from lower oil prices (since they are net importers) and from the stimulus created by the public sector. Similarly, Mexico would benefit from the higher dynamism of the U.S. economy. In contrast, Brazil's economic recovery would be weak, in the face of the fiscal consolidation to take place in that country and given the low confidence levels of businesses and consumers. Meanwhile, Venezuela will keep contracting due to structural problems having been intensified by the low international oil prices.

Even though a higher global economic growth is expected, real activity still shows non-negligible downward risks. One comes from a possible underestimation of the impact of falling commodity prices upon the emerging economies exporting these resources.

In Europe the uncertainty generated by the discussions around the financing conditions imposed to Greece by multilateral agencies, could have an important impact in the region's real activity and infect other countries by way of financial markets and confidence. Additionally, it is possible that the policies announced by the ECB will be unable to prevent the region from falling into a deflationary spiral that would affect negatively the balance of highly indebted agents and postpone consumption and investment decisions. Finally, the expected increase

of interest rates in the United States could have adverse effects on financial markets, capital flows into the emerging economies and investors' confidence.

## II. THE COLOMBIAN ECONOMY: RESULTS IN 2014 AND PROSPECTS FOR 2015

*In 2014 the Colombian economy grew by 4.6%, which represents a deceleration compared to 2013 (4.9%). The domestic demand's performance made an important contribution to growth, compensating the worsening of net exports. By sectors, the dynamism of non-tradables (construction, commerce, and financial services) stand out, that expanded above the economy as a whole. For 2015 an additional slowdown is expected, due to the effect of falling oil prices upon investment, to the adjustment of public finances and its impact on spending on public investment, to the global economy's performance and the effect of the monetary policy in the United States going back to normal on the behavior of capital flows.*

In the first three quarters of 2014 the Colombian economy performed well, this behavior contrasting with the slow growth registered by the largest countries in the region and other emerging economies. In said period, GDP rose by 4.9% in comparison with the 4.5% observed in the first nine months of 2013.

In terms of prices, from the beginning of 2014 inflation showed a convergence towards the long-term target (3%), starting from the low level registered in late 2013. The various core inflation measures and the price increase expectations also display a similar behavior. Thus, in September 2014, annual inflation stood at 2.86% and the average for the four core inflation measures at 2.63%. At the same time, the economy continued to show strengthening signs, using up the excess capacity.

Given the circumstances described above (of sustained economic growth and rising inflation), the Board of Directors of *Banco de la República* (BDBR) thought appropriate to move towards a less expansive monetary policy stance.

*In 2014, the Colombian economy displayed a good performance, in contrast to low growth of other countries of the region.*

*The effect of lower oil prices transmits to the national economy through various channels: a deterioration of national income, a fall of investment and a worsening of the trade and fiscal balances.*

This way, between April and August it increased gradually the benchmark interest rate by 125 basis points (bp) up to 4.5%. This increase was transmitted fully to the interbank offered rate (IOR), and partially to the deposit and borrowing rates.

In the last semester of 2014 banking loans decreased<sup>5</sup>, a behavior explained by a slower rhythm of commercial credit (in both pesos and foreign currency) that did not arrive to be offset by the greater dynamism of loans directed at households.

In the fourth quarter of 2014, GDP grew by 3.5%. The domestic demand continued to register high dynamism (5.7%), while net exports had a negative contribution to the GDP. Even though growth results were lower than those both expected and registered in the first three quarters, the Colombian economy's performance is still outstanding as compared with the region. For the entire 2014, Colombia's economic growth rate was 4.6%, somehow lower rate in 2013 (4.9%, revised by DANE).

Since July 2014, the Colombian economy has faced a negative external shock, this being an increasing behavior during the year's fourth quarter. Even though its net impact on global economic growth is likely to be positive, it nevertheless affects importing and net oil-exporting countries differently. On the one hand, importing countries will benefit from relieved household budgets, lower costs of supplies and improving external and fiscal positions. On the other hand, oil exporting countries like Colombia <sup>6</sup>, will be affected by the falling external and fiscal revenue.

The effects of lower oil prices are transmitted to the national economy through various channels. The most important impact is decrease in the terms of trade. This is reflected in the deterioration of national income and a drop in investment, as well as impairment of trade and fiscal balances. Falls in crude oil quotations do also reduce capital inflows, mostly those relating to foreign direct investment, and more particularly that directed to the oil sector<sup>7</sup>. All of the above tends to increase the country's risk premiums.

In the fourth quarter of 2014, some of the above-mentioned effects had already been observed. During this period, the annual decrease of terms of trade was 19.6% on average. Moreover, the sharp decline of oil export revenues and the dynamism of domestic demand caused further expansion of the current

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5 Although it continued to expand at rates above the nominal GDP.

6 In 2014, 52.8% of the country's foreign sales in dollars came from oil and its derivatives.

7 In 2014, around a third went to the oil sector.

account deficit in the country's balance of payments<sup>8</sup>. A decline of the expected revenue by the central national government (CNG)<sup>9</sup> due to low crude oil prices, has led to a revised 2015 financial plan and to discussions about the need for a tax reform.

However, it may be expected that the behavior of some other economic variables contribute to cushion the effect of the oil shock. In the first place, with Colombian peso depreciation against the dollar exports and the production of some sectors competing against imported goods become more competitive. Additionally, even though in 2015 a lower dynamism of investment in civil works is projected, its increase is estimated to be greater than the forecasted for the economy as a whole.

The fall of oil prices has taken place in a context of weak and uneven global growth, as mentioned in the first chapter of this Report. It is likely that the average expansion of our trade partners is slightly higher than in 2014, but lower than estimated in previous months.

In light of the above, *Banco de la República's* technical staff lowered its most likely forecast for the growth of the Colombian economy in 2015 from 4.3% to 3.6%, within a 2.0% to 4.0% range. The new most feasible figure takes into account a less dynamic national income and a declining external financing, which could generate expenditure moderation, especially by a lower private investment level. On its part, the interval's amplitude reflects the uncertainty over potential extreme scenarios relating to the behavior of oil prices and external financing.

As for prices, during the fourth quarter inflation continued to rise and in December stood at 3.66%, figure within the target range for 2014 set by the BDBR. Deviation with relation to the central point was fundamentally explained by the reversion of the transitory fall of food and regulated prices, and by temporary price increases of items such as entertainment, culture, and recreation. The Colombian peso depreciation taking place in the second half of the year was partially reflected in the CPI's tradable-goods component. In the last three months of 2014, also the average core inflation measure increased and, as of December, it stood at 3.1%.

In February 2015, consumer inflation stood at 4.36% and average core inflation at 3.53%. Inflation expectations by analysts were around 3.0%, while those derived from public debt securities stood at the upper half of the target range.

*The depreciation of the Colombian peso against the dollar would help to cushion the effects of the oil shock during 2015.*

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<sup>8</sup> During the first three quarters of 2014, the current deficit amounted to 4.8% of GDP, while in the fourth one it reached 6.5%. For the entire 2014 it was 5.2%, higher than the registered for 2013 (3.2%).

<sup>9</sup> About 20% came from oil-related activities.

According to the technical staff's estimates, during the first semester of 2015 inflation could be at levels slightly higher than those observed at the end of last year. The effects of the devaluation should be chiefly felt upon tradable goods prices. However, since falling prices of oil and other raw materials should induce cuts in production and transport costs and aggregated demand should not exceed the economy's productive capacity, the increase in prices of tradables would not jeopardize the fulfillment of the target range set for this year. Most likely, inflation will begin to fall in the starting in 2015's second half. This trend would continue in 2016, when inflation would converge towards the middle of the target range.

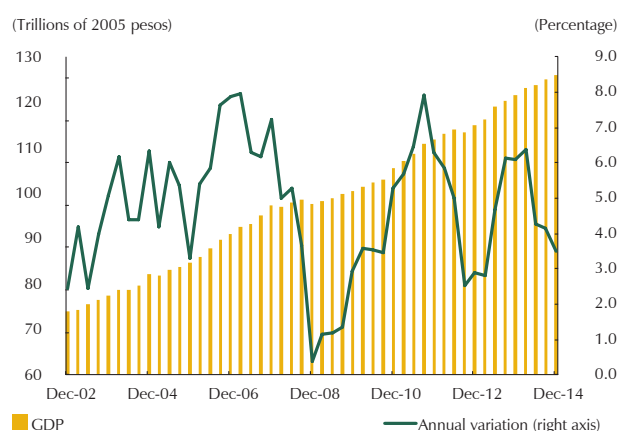
To conclude, by late 2014, dynamism being still displayed by domestic demand was close to the full use of its productive capacity. Inflation rose in the first months of the year and in February surpassed the target range's higher limit. Likewise, expectations have been increasing, standing at the upper half of said interval. The above is taking place within an environment of weakened terms of trade and of uncertainty about their future evolution and impact upon the aggregate demand. Thus, after assessing the balance of risks, between September 2014 and February 2015 the BDBR deemed appropriate to keep the benchmark interest rate at 4.5%.

Furthermore, at the December 2014 meeting it decided not to extend the foreign reserves accumulation program, taking into account the coverage levels against external liquidity risks, and the exchange market context.

## A. ECONOMIC ACTIVITY

### 1. Evolution of economic activity in 2014

Graph 10  
GDP (Seasonally adjusted)



Sources: DANE and Banco de la República.

According to economic growth data published by the National Administrative Department of Statistics (DANE), during 2014 the Colombian economy reported an annual 4,6% expansion (Graph 10), this being a slightly lower figure than that observed for 2013 (4.9%). The GDP's quarterly dynamic was not homogenous between periods: after the sharp growth displayed in the first three months of the year, throughout the next quarters a gradual deceleration was observed, which took place in the context of a well-performing demand and net exports contributing negatively.

Generally, the role played in 2014 by investment was highlighted, particularly in civil works and public consumption, even in spite of its deceleration

compared to last year. Investments in housing also contributed to the dynamism of economic activity, although to a lesser extent than in 2013. Additionally, the high confidence levels, improvements in the labor market (in terms of decreasing unemployment and better quality and conditions of work) would have fostered the household consumption's good performance. All this within an environment of relative credit availability granted at historically low rates.

In this way, domestic demand expanded at an annual rate higher than observed in 2013. The item with the highest share in this component of GDP, that is, aggregate consumption, recorded marked increases in 2014. Particularly, household consumption grew at a faster rhythm than in 2013 (Table 1).

With regard to gross capital formation, during 2014 the good performance of its components stood out. In particular, the behavior of investment expenditures in civil works, which increased at a faster pace than observed in recent years, mainly due to the advances made in works of infrastructure being executed by local and regional governments and financed with the greater resources made available by the General Royalty System. Added to the above, there was the increase in spending destined to modernization and adaptation of airports and ports, and the construction of various road works across the country by

Table 1  
Real GDP Annual Growth by Type of Expenditure

	2012 full year	2013 full year	2014				2014 full year
			Q1	Q2	Q3	Q4	
<b>Total consumption</b>	<b>4.8</b>	<b>5.0</b>	<b>5.4</b>	<b>4.4</b>	<b>4.3</b>	<b>4.8</b>	<b>4.7</b>
Household consumption	4.4	3.8	4.3	3.8	4.1	5.1	4.4
Non-durable goods	3.8	3.2	3.8	3.2	3.8	4.5	3.8
Semi-durable goods	5.2	2.7	3.9	3.6	3.5	7.3	4.6
Durable goods	7.6	7.4	3.9	4.6	8.3	13.3	7.6
Services	4.3	4.3	5.0	4.1	4.0	4.0	4.3
Government final consumption	6.3	9.2	9.5	6.6	5.1	3.9	6.2
<b>Gross capital formation</b>	<b>4.3</b>	<b>5.6</b>	<b>14.7</b>	<b>13.7</b>	<b>10.1</b>	<b>8.5</b>	<b>11.7</b>
Gross fixed capital formation	4.7	6.0	13.3	8.6	11.8	10.1	10.9
Agricultural, forestry, hunting and fishing	-12.9	-5.7	2.6	2.3	5.3	8.6	4.6
Machinery and equipment	13.3	0.2	14.4	7.8	14.6	12.2	12.2
Transport equipment	-9.6	-8.5	5.2	11.1	14.9	16.6	12.1
Construction and buildings	5.1	11.1	7.1	1.3	15.3	7.5	7.8
Civil works	4.8	10.8	25.9	13.3	7.0	3.3	12.1
Services	7.2	4.1	6.0	1.3	4.9	1.7	3.5
<b>Internal demand</b>	<b>4.7</b>	<b>5.1</b>	<b>7.9</b>	<b>6.1</b>	<b>5.8</b>	<b>5.7</b>	<b>6.3</b>
<b>Total exports</b>	<b>6.0</b>	<b>5.3</b>	<b>3.2</b>	<b>-11.5</b>	<b>4.9</b>	<b>-2.0</b>	<b>-1.7</b>
<b>Total imports</b>	<b>9.1</b>	<b>6.4</b>	<b>9.2</b>	<b>5.6</b>	<b>8.7</b>	<b>13.0</b>	<b>9.2</b>
<b>GDP</b>	<b>4.0</b>	<b>4.9</b>	<b>6.4</b>	<b>4.3</b>	<b>4.2</b>	<b>3.5</b>	<b>4.6</b>

Source: DANE; estimates by Banco de la República.

the national government. On its part, investment in building construction also expanded greatly, although at a lower rate than in 2013. This item performed well primarily in the various social housing projects the CNG is currently carrying out. (See shaded text 1: Recent evolution of Colombia's housing market).

## RECENT EVOLUTION OF THE HOUSING MARKET IN COLOMBIA

The evolution of the housing market has direct effects upon economic activity and potentially upon a country's financial stability. As for the former, the share of building construction in the GDP is close to 5%, which besides being a labor-intensive sector, it generates significant linkages<sup>1</sup>. On the demand side, investment in buildings corresponds to 24% of total investment (7% of GDP), and has indirect effects upon household consumption primarily via level of employment<sup>2</sup>

As for the possible repercussions upon financial stability, a home is in most cases the family's main asset and is generally a financed purchase. Thus, changes in the housing market may affect the financial system inasmuch as the portfolio for purchasing this asset has a sizeable share in the banks' balance or the properties are used as collateral for other type of loans.

Even though in Colombia the mortgage portfolio (housing leasing included) correspond to slightly over 12% of the credit establishments' total portfolio, there are percentage limits to the financing<sup>3</sup>, and mortgaging as collateral for

other loan modalities is not generalized<sup>4</sup>, which is why a continuous monitoring of the housing market's evolution is relevant. In this regard, analyses of the different variables related to such market are included by the Bank in its "Special Reports on Financial Stability" and the "Inflation Report".

According to data by Galeria Inmobiliaria<sup>5</sup>, in 2014 the number of sold housing units grew 4.5% compared to last year's, a lower figure to the reported in 2013 (8.6%). For this deceleration it must be taken into account that during much of 2013 interest rates for home loans other than social housing were subsidized<sup>6</sup>, and that total national sales were at their highest levels since 2008.

In the behavior of sales in 2014 two points stand out: i) the dynamism of social housing (VIS), that had a 13,6%, annual change, very much driven by the Government's programs<sup>7</sup>, such as one of priority housing for savers,

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1 Several industrial sectors, such as production of cement and non-metallic minerals in general, furniture manufacturing, wood products, among others, are invigorated by building activities.

2 The literature also mentions the possible effects relating to the wealth effect upon household consumption which changes in home prices can generate, or the access to credit gained when homes can be used as collateral.

3 According to Decree 195/2000, modified by Decree 3760/2008, the limit is 70% of the property value for non-social housing and 80% for social housing.

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4 In the consumer portfolio case, for example, according to data at September 2014 only 0.5% of operations pertained to real estate leasing or was backed by mortgages.

5 This includes information for Bogota and its surroundings, Medellin, Cali, Bucaramanga, Barranquilla, Cartagena, Santa Marta and Villavicencio. In all cases the town center is included and in some, also the urban or the metropolitan area. It also includes rural housing located in some municipalities near Bogota.

6 Houses of 335 times the amount of the statutory minimum wage.

7 The "100 thousand free houses" program is not taken into account since no sale is taking place.



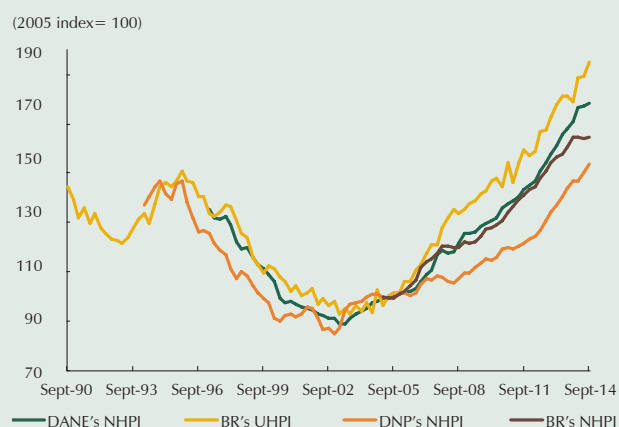
which compensated the 5.0% fall of the non-social housing segment, and ii) sales decreased in the largest markets, namely Bogotá, its surroundings and Medellín<sup>8</sup>, that jointly comprise 60% of the national market, while in cities with lower volumes of sales, like Cali or those in the Caribbean Coast, increased.

As for prices, the various available indices for the country show those historical maximums have been reached in the last few years (Graph A). Even though prices continue rising above consumer inflation, its growth has moderated in the last quarters<sup>9</sup>.

8 Including its metropolitan area. They also decreased in Bucaramanga.

9 According to information as of September 2014, new housing prices grew by 6.1% annual above the CPI, according to the NHPI by DANE; used home prices increased by 7.6% according to Banco de la República's NHPI; new housing prices in the main cities (Bogotá and its surroundings, Medellín and Cali) grew by 2.6%, according to Banco de la República's NHPI, and to the NHPI by the DNP prices for new housing in Bogotá were adjusted 6.7%.

Graph A  
Colombia's Housing Price Index  
(Relative to the CPI)



Sources: DANE, DNP and Banco de la República.

For the remaining items of gross fixed-capital formation sizeable growth rates were registered; it was the case of investment in machinery and equipment destined for industry and transportation equipment (the latter is associated with some air carriers' fleet renewal and expansion plans). On the other hand, a new cattle retention phase and the completion of coffee renewal processes encouraged investment behavior in the agricultural sector.

Finally, during 2014, the performance of foreign trade was uneven: while imports increased significantly as compared to what was observed in 2013, exports behave poorly. The remarkable growth of external purchases reflected the generalized dynamism of the domestic demand. Besides, the temporary closure of the Cartagena Refinery (Reficar), due to adjustments and the enlargement of its plant, forced to increase the importing of intermediate goods, particularly fuels, in order to replace the falling local supply of refined products. With regard to foreign sales, the lower performance of our trade partners would have contributed to the poor results of exports. Likewise, the various supply shocks to the oil sector in the first half of the year had an impact on their foreign sales<sup>10</sup>

10 The closing of Reficar also affected foreign sales of refined oil products.

On the supply side, throughout 2014 the most dynamic branches were construction, commerce and financial services (Table 2). Conversely, the manufacturing and mining industries displayed a weak behavior, and even annual contractions were seen in some quarters. Most sectors slowed down during the second half of the year.

Table 2  
Real GDP Annual Growth by Sectors of Economic Activity

Sector	2012	2013	2014				2014
	Full year	Full year	Q1	Q2	Q3	Q4	Full year
Agriculture, livestock farming, hunting, forestry and fishing	2.5	6.7	6.2	0.3	1.7	0.9	2.3
Mining and quarrying	5.3	5.5	6.1	(2.2)	(1.2)	(3.3)	(0.2)
Manufacturing industry	0.1	0.6	4.1	(2.0)	(0.6)	(0.3)	0.2
Utilities (gas, electricity, and water)	2.3	3.2	4.4	3.7	4.0	3.1	3.8
Construction	5.9	11.6	14.2	8.4	11.1	5.9	9.9
Buildings	5.9	11.2	6.8	1.0	14.1	7.5	7.4
Civil works	6.0	12.1	24.8	14.3	7.1	3.8	12.0
Commerce, repairs, restaurants, and hotels	3.9	4.5	5.5	4.1	4.2	4.5	4.6
Transportation, storage, and communications	3.9	3.6	4.9	4.3	4.2	3.2	4.2
Financial institutions, insurance, real estate, and business services	5.1	4.6	5.4	5.5	4.5	4.1	4.9
Social service, community, and personal activities	4.6	6.0	7.6	5.5	4.7	4.2	5.5
Sub-total aggregated value	3.9	5.0	6.3	4.0	4.1	3.2	4.4
Taxes less subsidies	5.4	3.9	7.5	8.2	7.4	8.3	7.8
<b>Gross Domestic Product</b>	<b>4.0</b>	<b>4.9</b>	<b>6.4</b>	<b>4.3</b>	<b>4.2</b>	<b>3.5</b>	<b>4.6</b>

Source: DANE; estimates by Banco de la República.

The most dynamic sector during 2014 was construction (9.9%), both of buildings (7.4%) and civil works (12.0%), for the reasons already presented. With regard to commerce, the marked dynamism of retail sales stands out (11.2%) and within this item the very good behavior of vehicle sales (with a 19.1% annual expansion). Excluding vehicles, sales grew by 9.7%. With all this, the sector's aggregate value was 4.6%.

The financial, real estate and business services GDP continued to grow at a relative fast rate (4.9% in a year). Given its share in the GDP (19.6%), this remained as one of the most-contributing sectors to the expansion of the economy (as it has been since for years).

During 2014 the mining and manufacturing sectors displayed the worst performance. The former was the only one that shrank (-0.2%), markedly below the observed in prior years (an average 9.3% between 2008 and 2013). The decline concentrated in oil production, which fell 1.9% in 2014 as a result of some oil transport bottlenecks and public order problems (as attacks on oil

*The growth of the Colombian economy continued to be led by non-tradable sectors that expanded by an annual 6,0% in 2014. The tradable GDP displayed a 2.3% annual growth rate.*

pipelines). In fact, annual average production was of 987,000 barrels per day, a figure lower than the target proposed by the authorities at the start of the year (around 1,030,000 barrels per day).

The industry showed a 0.2% growth in 2014. According to a survey by the National Business Association of Colombia (ANDI), the main obstacles faced by businesspeople in the normal course of their activities were the high level of competition, low demand, exchange rate, cost and supply of raw materials, in addition to smuggling. Likewise, it must be noted that the sector was significantly affected by supply shocks: the temporary closure of the Cartagena refinery (Reficar), that took place since the first months of the year, subtracted 1.1 percentage points (pp) from the industrial growth and 0.1 pp to total GDP. It is worth pointing out that the company closed its facilities for expansion and modernization purposes, and their reopening is expected to take place in the second half of 2015.

Finally, the growth of Colombian economy continued to be led by the non-tradable sectors, which in 2014 expanded by 6,0% annually, above a year before (5.5%). The tradable sector GDP, on its side, showed an annual growth rate (2.3%) lower than that of the economy as a whole and of 2013 (4.1%). Excluding mining, the tradable sector displayed a greater increase (2.9%).

## **2. Prospects of the Colombian economy in 2015**

Given the fall in international crude oil prices, for the whole 2015, reduced dynamics in national income available is foreseen, as well as a decrease in investment, specially that geared towards the oil sector. These effects will jointly induce a slowdown in domestic demand components. In contrast, it is expected that the nominal exchange rate's depreciation will boost growth of exports, mainly of non-traditional ones, and discourage the dynamic of imports. Thus, net exports are expected to offset to some extent domestic demand's poorer performance.

In light of the above, the projections made by *Banco de la República's* technical staff about the growth of the Colombian economy suggest that GDP in 2015 would expand at a slower pace than in 2014. This deceleration of economic activity would be related primarily to a sizeable fall of international oil prices<sup>11</sup>. However, uncertainty about the magnitude of the effects of this decline upon product growth is high. And the Colombian economy's performance will depend on other factors, as the availability of external financing, the way in which the confidence of economic agents is affected, and the degree to which regional and national public finances are adjusted.

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11 See box 1: "The Fall of Oil Prices and its Channels of Influence on the Colombian Economy" pp. 86-89.

*For the entire 2015 a lower dynamic of the national income available and a decline of investment are foreseen. The magnitude of the adjustment will depend both on external and internal factors.*

The behavior of the international context is also a variable to be taken into account. In principle, perspectives of growth for some large economies and our main trade partners in the regions are unclear. Also, there is no clarity with regard to the effect that a possible normalization of the monetary policy in the United States would have upon the behavior of capital flows into the country.

On the other hand, the falling prices of oil and other raw materials exported by Colombia should be partially compensated by the lower prices of imported goods. This could attenuate the decrease in the terms of trade and would have a likely positive effect upon economic growth through lower costs for the economy.

GDP projections shown below suppose lower capital inflows from FDI (especially that destined to the mining sector) and lower portfolio investments, in line with the forecasts of the balance of payments presented in Section E of this chapter.

With regard to the local situation, a significant deceleration of the domestic demand is foreseen. The most affected item would be gross capital formation; in particular, an important decline of investment on exploration and exploitation in the oil sector it is expected, this being the result of the falling oil prices and in agreement with the lower FDI income projected for this sector.

The remaining investments in capital goods would also show a poorer performance than in 2014, even though deceleration would be of lower magnitude. On its part, investment expenditures in construction of buildings and civil works should benefit from the continuance of the social housing construction program carried out by the national government and the execution of already committed resources in road and airport infrastructure projects being built across the country. It is worth pointing out that resources made available for projects awarded within the framework of the first wave of construction of 4G road concessions would start being disbursed, as pertaining to payments relating to the financial planning and technical studies phases. However, disbursements scheduled for this year are a small percentage of the total sum allocated.

*Investment in construction of buildings and civil works will be benefitted from the national government's social housing programs and from the execution of resources in road and airport infrastructure projects.*

On its part, aggregate consumption would get a substantial boost on account of government spending. Despite the foreseen deceleration of this item's dynamic for the CNG, the greater execution of resources at regional and local levels during the last year in office for mayors and governors suggests that this component of GDP will perform well during 2015. On the private consumption side, lower growth rates would obey to the impact that the falling terms of trade and the likely reduction in capital flows directed to the country on household's spending power. Additionally, the transmission of a more depreciated exchange rate to the price of tradable goods will tend to mainly

*A decline of imports is expected, associated to a poorer performance of investment expenditures, less consumption of imported goods and the reopening of Reficar.*

*The mining sector should report a significant expansion, which would consolidate its process of recovery based on the investment efforts made in previous years.*

discourage the consumption of durable and semi durable imported goods —see Box 2 of this Report: “Exchange rate and inflation in Colombia”— pp. 90-94.

For exports and imports, uneven behaviors are projected during 2015. In the first case it is expected that the accrued depreciation of the nominal exchange rate will have positive effects upon exports of non-traditional goods and services. In addition, quantities produced of coal and oil should register increases compared to the observed in 2014.

In the case of imports, significant downturns are expected, particularly associated to a weaker performance of investment spending in machinery and equipment and transportation equipment. A possible replacement of imported supply with local equivalents is foreseen, due to the cost increase associated to the depreciation of the peso. Similarly, the reopening of Reficar would imply less need for foreign purchases of refined oil products, since the new domestic production would replace a large part of this kind of imports.

On the supply side, besides construction that would continue the best performing sector in 2015, sectors having remarkable expansion would be mining, industry and social, communal, and personal services.

For the former, the recovery of coal production is expected to continue during the remainder of 2015, following the public order and transportation problems that complicated the production chain in 2013 and the first part of 2014. Something similar would happen in the case of oil. However, it is worth noting that the projection of average crude oil production for 2015 have been revised downwards by *Banco de la República*’s technical staff (to some 1,020 thousand barrels per day) as well as by various economic analysts<sup>12</sup>, mainly due to its recent price fall. It is to be highlighted that, despite the recent decline of both oil and coal prices, investments made in transport of these products in previous years should contribute to these sector’s growth rates in comparison with 2014, although it is estimated that annual expansion will stand at rates below the two-digit ones observed between 2008 and 2011 (11.4% on average).

With regard to the industry, forecasts for 2015 anticipate a recovery based on investment efforts made in previous years, on the diversification of products and export markets and the contribution brought by the recent depreciation to competitiveness. Likewise, it must be pointed out that the sector will have a low comparison base after three years of stagnation and that Reficar’s reopening

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12 At the start of the year, the International Energy Agency revised downwards its oil production projections for Colombia, to an average 930,000 barrels per day for 2015, from the 1.1 million it expected a few months back. On their part, institutions such as Fedesarrollo and the Colombian Petroleum Association maintain a projection of over one million daily barrels, however far from that of the Ministry of Finance’s mid-term Fiscal Framework, published in mid-2014 (1,029,000 daily barrels, on average). In this sense, it is important to clarify that the amounts of oil produced would grow *vis-à-vis* 2014, but less than expected months before.

*After three years of stagnation, the industry is expected to make an important contribution to GDP growth.*

in the second semester will mean an important leap in the production of oil derivatives, whose share in the industry GDP is currently around 12.5%. Thanks to all that, during 2015 the manufacturing industry would attain an expansion higher than the whole of the economy.

In any event, some branches would continue to face fierce competition from imports, according to the perception reported by entrepreneurs in the surveys by ANDI. In other cases, such as the publishing, printing and related industries, the downturn is likely to continue, which responds to deep structural changes afflicting this sector worldwide.

As for social, personal, and communal services, the dynamism of public spending is expected to continue playing an important role among the sources of growth in 2015, especially in areas associated with public administration, social assistance and health. However, uncertainty about tax revenues resulting from oil prices decline and volatility points to a slowdown in this type of spending.

On their part, financial services would continue to contribute actively to the Colombian economy's expansion, which is attributed to their high participation in the sector (19.6%) and the dynamism that the financial system's investments and the expansion of portfolio would continue to show, in an environment of relatively low interest rates.

*Agriculture would show an uneven performance, coffee would continue expanding, while there is great uncertainty about the duration and effect of the livestock retention cycle.*

Finally, an uneven behavior is expected for the farming sector in 2015. Coffee production would continue contributing in a significant way to the sector's aggregated value, although to a lesser extent than observed in 2014. However, cattle slaughtering would counteract such dynamic due to the continuance of the livestock retention cycle. In the first case, according to the National Federation of Coffee Growers (Fedecafe), during these years a peak in the production of the bean would be reached, deriving from the renovation of crops taking place between 2008 and 2013<sup>13</sup>. In contrast, there's a high level of uncertainty about the duration of the livestock retention cycle and its impact in 2015, since the patterns of trade, especially with Venezuela, may have altered it.

Based on all of the above, GDP growth in the most likely scenario is projected to stand at around 3.6% for 2015, within a range of between 2.0% and 4.0%.

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13 In those years more than 546,000 hectares (2.900 billion trees) were modernized. This entailed an improvement of productivity, since 61% of the cultivated area was planted with rust-resistant varieties, planting density was increased by 10% and the average age of the coffee plant decreased from 12.4 to 8.2 years.

## B. THE LABOR MARKET

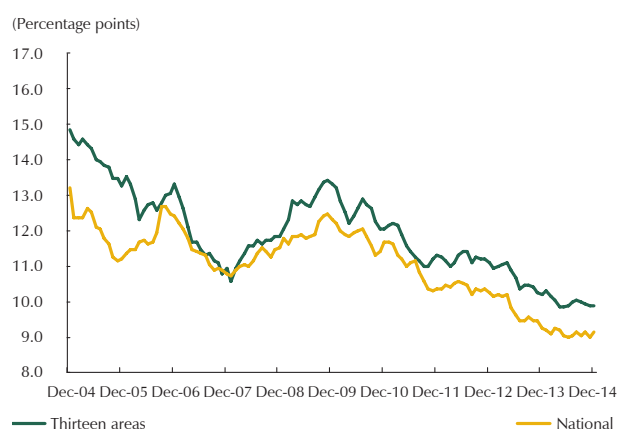
During 2014 the labor market showed significant improvements. The decrease of the unemployment rate (UR) stands out, mainly related to a greater demand of labor. Besides, during the year increases in formal salaried employment<sup>14</sup> were observed, variables that are closely linked to the evolution of consumption and household confidence.

### 1. Unemployment

According to DANE's Great Integrated Household Survey (GIHS), during 2014 marked reductions of the UR were registered. This behavior took place in every geographical area, except in rural ones. This way, the 2014 national UR stood at 9.1% on average and that for the thirteen main metropolitan areas at 9.9%<sup>15</sup>, values lower by 0.5 and 0.7 pp, respectively, to the average registered in 2013. Seasonally adjusted series show that during 2014 these indicators remained at the minimum levels of the last fourteen years, period for which

there is comparable data (Graph 11). By chain-linking UR series for the main seven metropolitan areas<sup>15</sup>, it can be seen that current levels were not observed since 1996 (Graph 12).

Graph 11  
Unemployment Rate  
(Rolling quarter, seasonally adjusted)



Source: DANE (GIHS); estimates by Banco de la República.

This UR series is built with information from the GIHS and DANE's National Household Survey. Each one has different methodologies and geographical coverage, which is why the UR indicator may show marked bias towards the past.

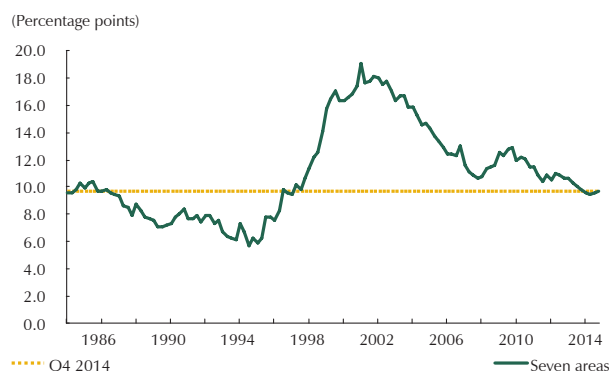
The labor market's improvement is corroborated when UR for heads of households is examined, a segment which follows the economic cycle more closely since it shows a less volatile labor supply, and it is less affected by demographic and participation

14 Any worker or laborer of private and public companies is considered a wage earner. On its part, a formal worker is understood as one being employed by a business with over five employees (according to the definition adopted by the IWO and the DANE). The text refers to waged, formal workers when both conditions are met.

15 According to DANE's GIHS, a metropolitan area is defined as "the zone of influence comprising the municipalities that surround a city with which they form a non-discontinuous urban fabric and have been legally-acknowledged". The thirteen main areas are: Bogotá; Medellín and Valle de Aburrá; Cali and Yumbo; Barranquilla and Soledad; Bucaramanga, Girón, Piedecuesta, and Floridablanca; Manizales, and Villa Maria; Pasto; Pereira, Dos Quebradas, and La Virginia; Cúcuta, Villa del Rosario, Los Patios, and El Zulia; Ibagué; Montería; Cartagena, and Villavicencio.



Graph 12  
Unemployment Rate  
(Seven areas, seasonally adjusted quarter)



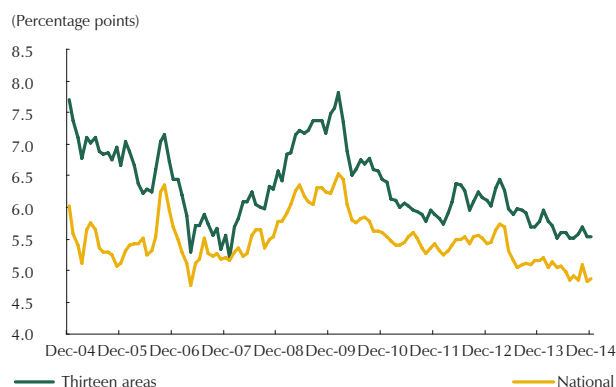
Source: DANE (GIHS and NHS); estimates by Banco de la República.  
Note: This UR series is built with information from the GIHS and DANE's National Household Survey. Each one has different methodologies and geographical coverage, which is why the UR indicator may show marked bias towards the past.

phenomena. In this group the UR decreased during 2014 (Graph 13).

## 2. Labor supply and demand

The dynamics of unemployment may be explained by the behavior of supply, summed up by the labor force participation rate (LFPR), and that of demand, understood as the employment rate (ER). As shown in Graph 14, in 2014 both the LFPR and the ER showed marked improvements in the thirteen areas; however, the latter displayed a slightly higher figure, reason why it is possible to affirm that the decrease in the UR is explained by a greater labor demand.

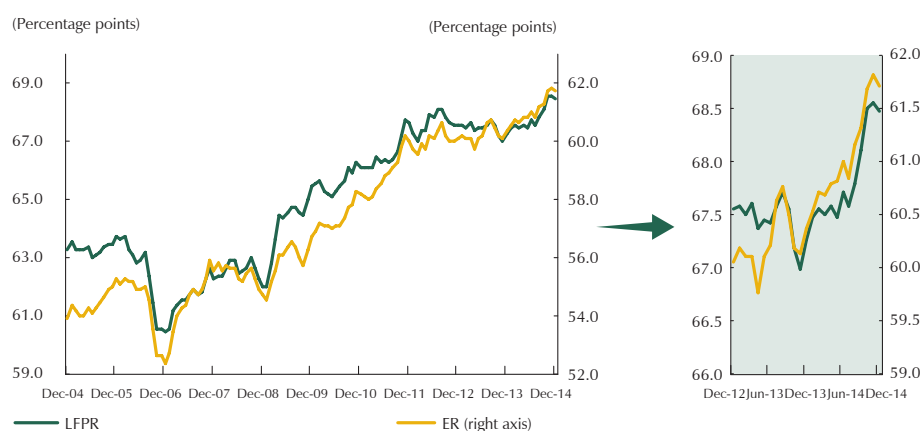
Graph 13  
Unemployment Rate of Heads of Household  
(Rolling quarter, seasonally adjusted)



Source: DANE (GIHS); estimates by Banco de la República.

During 2014 the number of employed grew by an average 2.2% annual in the national total, 2.9% in urban centers and 3.0% in the thirteen areas. In rural areas the number of employed decreased by -0.1% annual during the same period (Graph 15).

Graph 14  
Labor Force Participation Rate (LFPR) and Employment Rate (ER)  
(Seasonally adjusted, thirteen areas)

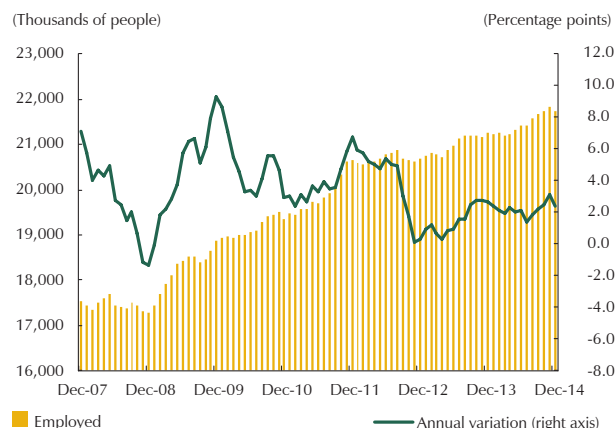


Source: DANE (GIHS); estimates by Banco de la República.

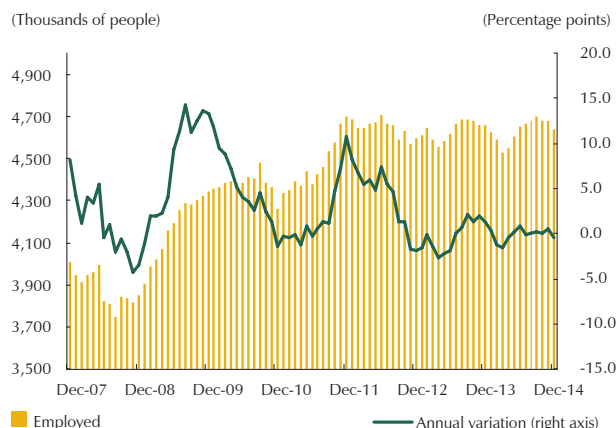


Graph 15  
Number of Employed and Annual Change  
(Seasonally adjusted moving quarter)

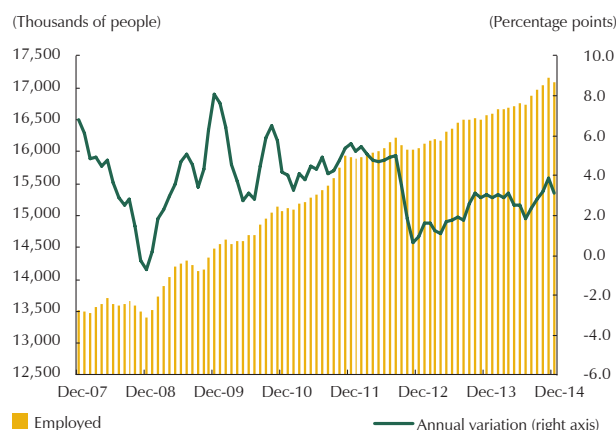
A. National Total



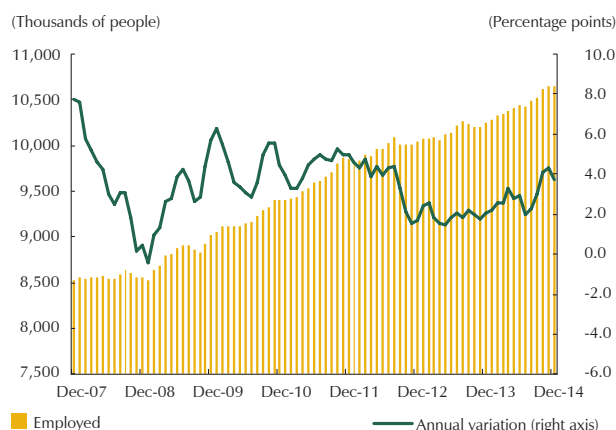
B. Rural Areas



C. Urban Centers



D. Thirteen Main Metropolitan Areas



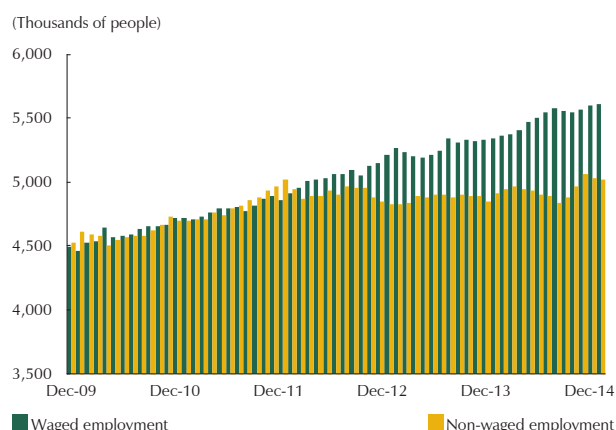
Source: DANE (GIHS); estimates by Banco de la República.

A breakdown of job creation by branches of economic activity shows that, on average, during 2014 it was driven by the service sector and, to a lesser extent, by commerce. The manufacturing industry would have displayed increases in employment. On their part, mining and agriculture made on average a negative contribution to the generation of jobs in 2014.

### 3. Quality of employment and labor market conditions

Variables associated with the quality of employment kept on evolving favorably during 2014. Significant progress in formality and waged employment continued to be made, which in part could be attributed to policies fostering formal employment being implemented in recent years.

Graph 16  
Employment by Type  
(Thirteen areas, rolling quarter, seasonally adjusted)



Source: DANE (GIHS); estimates by Banco de la República.

It is worth highlighting that most jobs generated in 2014 were waged, with a 4.5% annual growth rate in the thirteen areas. On the other hand, non-waged employment has increased again, after an important period of zero or negative growth. In the thirteen areas, the latter expanded by an average 1.4% annual rate for the twelve months of 2014 (Graph 16).

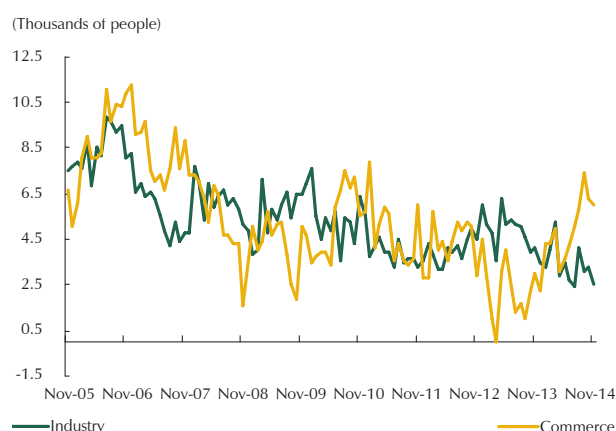
On its part, the percentage of formal workers in the thirteen areas stood at 51.5% on average during the year, a 1.02 pp increased as compared to last year's the same period. A good part of this increase in formal employment is explained by the expansion of higher education employment, which grew at an average 8.4% annual rate during 2014.

Increasing formality and waged employment are usually associated with progress in matters of quality of employment. The above is due to the stability, higher remuneration and better access to credit enjoyed by this kind of workers, which in turn boosts consumer confidence and household consumption.

#### 4. Labor and salary costs

During 2014, salary adjustments were moderate. Between January and November, nominal salaries in the industrial sector showed an average 3.4% annual increase, while in commerce the average increase was 5.0% in the same period (Graph 17). The faster pace observed in salaries for commerce may be explained chiefly by two factors: first, the reactivation of sales of vehicles observed in the second half of 2014 and the resulting increase in commissions, which are part of the income in this sector; secondly, the appearance of new businesses offering higher wages per capita.

Graph 17  
Nominal Salary Index: Industry and commerce

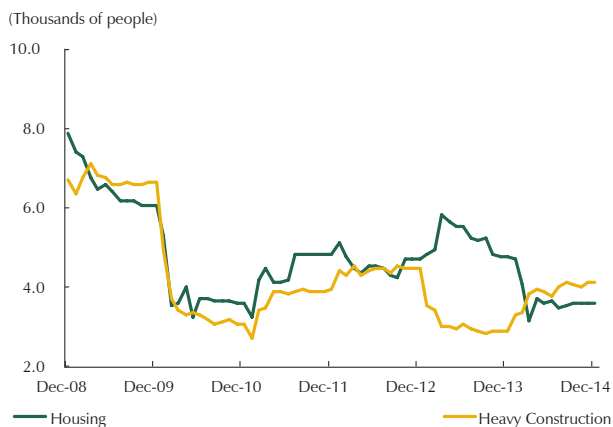


Source: DANE (Monthly Retail Trade Sample and Monthly Manufacturing Sample); estimates by Banco de la República.

Regarding heavy construction and housing, during 2014 nominal salaries in these sectors displayed an average annual expansion of 3.9% and 3.7%, respectively (Graph 18).

As mentioned in previous reports, in later years costs per worker have increased at rates lower than salaries, due to the reduction in compulsory contributions made by the employer as envisaged in the 2012 tax reform. However, since the effect of this measure is a one-time-only event, inflationary pressures originated on labor costs could be greater in 2015.

Graph 18  
Nominal Salary Index: Heavy construction and housing



## 5. Expectations for 2015

Since an economic growth lower than in previous years is expected for 2015, it is probable that employment will grow at a slower pace than in 2013 and 2014. It is then likely that in the future the UR will not decrease in magnitudes observed in that period. In addition, the formalization of the labor force could decrease.

However, the great uncertainty associated to the scale of the impact of these factors upon the labor market must be taken into account; even more so, considering that the effect of the depreciation is heterogeneous across all branches of economic activity, since it could favor some labor-intensive tradable sectors.

Thus, it is expected that, were the moderate salary adjustments to continue, inflationary pressures originated in the labor market could remain low and would not compromise the meeting of the inflation target set by *Banco de la República* for 2015.

## C. INFLATION

### 1. Inflation in 2014

Consumer inflation rose continuously in 2014 from the low level observed in late 2013. The result in December was 3.66%, standing at the upper half of the range target (2.0% to 4.0%) establishes by the BDBR. A similar behavior was

observed in core inflation, which, according to the average of the four indicators being monitored by the Bank, at the year's closing was 3.06% (Graph 19, Table 3). From late 2013, the technical staff of *Banco de la República* as well as market analysts expected inflation to display an upward trend towards 3.0% in 2014, since the decrease observed a year ago was deemed to be largely temporary.

Thus, the reversion of the downward shocks observed in 2013 that made a one-time-only impact upon price levels, contributed markedly to the inflation increase during 2014. These shocks ranged from a cut on indirect taxes to raw materials, food and fuels, among others, ordered in the tax reform

Graph 19  
Total Consumer and Core Inflation

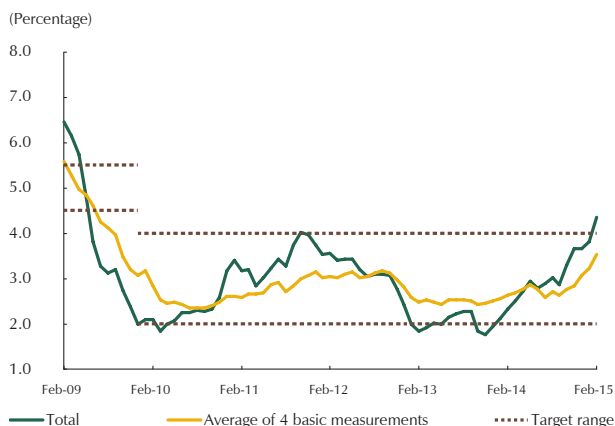


Table 3  
Consumer-Inflation Indicators  
(at February 2015)  
(percentage)

Description	Weighting	Dec-12	Mar-13	Jun-13	Sept-13	Dec-13	Mar-14	Jun-14	Sept-14	Dec-14	Jan-15	Feb-15
<b>Total</b>	<b>100</b>	<b>2.44</b>	<b>1.91</b>	<b>2.16</b>	<b>2.27</b>	<b>1.94</b>	<b>2.51</b>	<b>2.79</b>	<b>2.86</b>	<b>3.66</b>	<b>3.82</b>	<b>4.36</b>
Excluding food	71.79	2.40	2.11	2.48	2.36	2.36	2.62	2.66	2.70	3.26	3.20	3.42
Tradables	26	0.77	1.13	1.10	1.34	1.40	1.65	1.94	1.59	2.03	2.28	3.26
Non-tradables	30.52	3.92	3.85	3.78	3.70	3.76	3.55	3.45	3.26	3.38	3.47	3.50
Regulated	15.26	1.91	0.20	1.98	1.24	1.05	2.21	2.14	3.25	4.84	4.01	3.46
<b>Food</b>	<b>28.21</b>	<b>2.52</b>	<b>1.41</b>	<b>1.34</b>	<b>2.05</b>	<b>0.86</b>	<b>2.23</b>	<b>3.11</b>	<b>3.25</b>	<b>4.69</b>	<b>5.41</b>	<b>6.78</b>
Perishable	3.88	(3.90)	(1.86)	2.44	5.94	(0.16)	3.17	8.92	7.61	16.74	16.78	19.68
Processed	16.26	2.83	1.25	(0.11)	0.18	(0.24)	0.92	1.44	2.14	2.54	3.70	5.62
Food outside the home	8.07	4.90	3.22	3.51	3.74	3.26	4.13	3.52	3.23	3.51	3.60	3.34
<b>Core-inflation indicators</b>												
Excluding food		2.40	2.11	2.48	2.36	2.36	2.62	2.66	2.70	3.26	3.20	3.42
Core 20		3.23	2.78	2.83	2.79	2.72	2.86	3.04	2.89	3.42	3.58	3.62
CPI excluding perishable foods, fuels, and utilities		3.02	2.51	2.14	2.19	2.19	2.53	2.53	2.39	2.76	3.12	3.69
Inflation excluding food and regulated items		2.55	2.67	2.63	2.69	2.74	2.74	2.81	2.55	2.81	2.97	3.40
<b>Average of all indicators</b>		<b>2.80</b>	<b>2.52</b>	<b>2.52</b>	<b>2.51</b>	<b>2.50</b>	<b>2.69</b>	<b>2.76</b>	<b>2.63</b>	<b>3.06</b>	<b>3.22</b>	<b>3.53</b>

Source: DANE; estimates by Banco de la República.

that went into effect in early 2013, to exceptional weather conditions favoring the agricultural supply. In addition to the above, there was a broad supply of specific food products and cuts in several utility bills ordered by local authorities. In 2014 these shocks were not repeated and prices, particularly of food and regulated, tended to show positive adjustments more in tune with the long-term inflation target.

The growing trend of inflation towards levels closer to the long-term target in 2014 was consistent with a more dynamic domestic demand and an output level converging with the full use of the installed capacity; also, with a depreciation of the peso in the second half of the year, which transmitted partially to the tradable CPI's annual change.

Although great part of the demand's behavior and the reversions of some of the shocks had been anticipated, the inflation path tended to exceed both Bank and analysts' forecasts. Thus, in 2014 inflation ended at between 50 and 100

*The upward trend of inflation in 2014 was consistent with a more dynamic domestic demand and a depreciation of the peso in the second half of the year.*

bp above the various projections made at the beginning of the year. Despite this, inflation expectations, a key element for fulfilling the long-term target, remained anchored at 3.0% throughout the year, something that contributed to monetary policy.

Indeed, between April and August, the BDBR raised its benchmark rate five times (25 bp each month), having considered that the domestic demand's greater dynamic, along with an inflation on the rise and slightly higher than expected, was consistent with a less expansive interest rate. From mid-year the decline of oil prices caused uncertainty about the solidity of economic growth towards the future. Additionally, few demand pressures were registered, together with expectations of inflation that remained anchored at the target. Faced with the circumstances, after a risk assessment, the BDBR decided to keep the interest rates unaltered for the remaining four months of the year; this without ignoring that in the future the depreciation of the peso observed since the second half of the year could increase tradable prices.

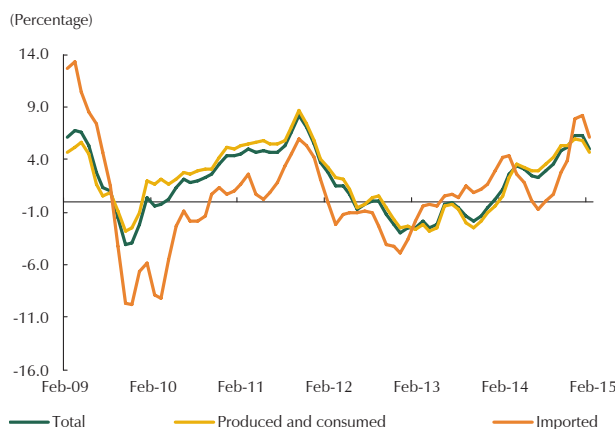
Underestimation of inflation in 2014 is explained by two factors: in the first place, in the case of food, a weaker than usual agricultural supply, especially in the case of non-processed products such as tubers, vegetables and fruits or semi-processed like rice, planting and production which were discouraged by the low prices observed in 2013, all leading to adjustments greater than initially foreseen. This behavior would have been reinforced by less-than-optimal weather conditions, with some localized drought episodes during the first semester of the year and by a non-negligible risk of an El Niño phenomenon in the second half of 2014. In the past, the latter has tended to postpone planting and harvest, altering prices provisionally. In the case of some products like rice and derivatives from the poultry industry, there is evidence of some phytosanitary problems that would have hit productivity.

In the second place, due to a phase of exchange depreciation that started in June and increased in the fourth quarter, which began to be evident with higher-than-expected increases in prices of some goods and tradable services. It is the case of some processed foods with high levels of imported components (eggs and chicken) and of other goods and services like vehicles and air tickets. The CPI's of tradables excluding food and regulated closed the year with a monthly 2.0% change that, while low (when compared to total inflation) had not been observed for five years (Table 3). Nevertheless, up until December, the transmission of the depreciation of the peso to consumer prices had been slower than observed during prior episodes, something of note when the extent of such depreciation is taken into account: 26.5% between July and December, and of 7.2% for the entire year on average.

*Despite that inflation stood above projection made by the Bank and analysts, expectations remained anchored at 3% throughout the year.*

The effects of depreciation were made evident faster on the producer prices, via those of imported raw materials. The total PPI's annual change rose

Graph 20  
PPI by Origin



Source: DANE; estimates by Banco de la República.

substantially throughout the year, especially during the second semester, standing at 6.3% in December (compared to -0.5% a year before), while the imported PPI closed the year at 7.9% (compared to 1.7% in December 2013) (Graph 20). Higher consumer prices suggest increases in non-labor costs that, nonetheless, were not expressed in pressures upon consumer prices in 2014.

Again in 2014, demand pressures were scarce despite the dynamism of the economy. This conclusion can be reached after having observed the fall of the non-tradable CPI excluding food and regulated items to more moderate levels: in December of that year, it stood at 3.38% compared to the 3.76% twelve months back. Rent, the item with the greatest weight within the consumer basket, contributed to this dynamic, having shown a decreasing trend throughout the year and closing at 3.0% in December. The low

inflation in 2013 (part of rents are indexed to past inflation) and a broad supply of housing supply are factors explaining this good performance.

Finally, in 2014, salary cost pressures upon inflation were limited, as the preceding section of this document points out. The decrease in the contributions to health paid by employers, aside from low salary adjustments, prevented hiring costs from rising, thus preventing pressures on consumer prices from arising.

## 2. Perspectives for 2015

In the first months of 2015, annual consumer inflation increased; however, it is expected that between the second and third quarters it will start to decrease, to the extent that pressures of transitional nature lessen. This trend would continue in 2016, when inflation would converge to the long-term target.

The gradual transfer of the accrued depreciation of the Colombian peso to consumer prices should continue throughout 2015. In any event, in line with what was observed during depreciation periods over the last fifteen years, a transmission is expected to take place. Besides, considering that, as explained in the first section of this chapter, a slowdown of economic growth is foreseen, there would be less pressure upon prices.

Prices responding most to a higher exchange rate would be those of the tradable basket excluding food and regulated items, and foods with a high level of imported components. However, in the latter case the effect should be

attenuated by lower prices of agricultural raw materials and transport compared to the observed in 2014.

Regarding the above, it is worth expecting that production costs measured in dollars show a downward trend, in an environment of low global inflation, with severe falls of oil prices and lower (or at least trending towards stability) prices of a wide range of raw materials in 2015. This fact should partly compensate for the upward pressures originated in the depreciation of the peso. In addition, important reductions in domestic prices of fuel, as the decline of international oil prices during the second half of 2014 (51% between June and December) are higher than the depreciation observed in the same period.

A second source of inflationary pressures that will be present in 2015's first half has its origins in the prices of domestically produced foods. Conditions for a limited supply in the case of several primary and semi-processed products, such as potato and rice, should continue during the first two quarters since these are half-year products. Thus, the annual change of food prices would continue to increase in the first months of the year, along with total inflation. However, for the second semester decreases in prices are expected once planting goes back to normal and the supply reacts to greater margins.

In 2015 some adjustments to the regulated fees for natural gas are anticipated as well, considering production and transport bottlenecks faced by the sector and the restructuring of contracts for the supply of this raw material in the fields of La Guajira. Likewise, there will be readjustments in electrical energy bills above the inflation target, although lower than observed the past year. Both facts should maintain the annual change of the regulated CPI in the positive, despite the expected reduction in the price of gasoline, albeit with a downward trend.

If forecasts about a lower growth of GDP in 2015 are verified, the economy should face some excesses in productive capacity, which would allow for ruling out any important pressures originated in the demand. For the same reason, the rhythm of job creation will tend to be slower than in previous year, limiting the increase of labor costs.

If inflation expectations remained anchored at the long-term target, rises derived from a restricted food supply, from readjustments of some regulated items' fees and from depreciation will be transitional in nature and shall have a short-term effect upon inflation.

Thus, the Bank's models anticipated an annual consumer inflation rising steadily during the first months of 2015 but began to decline from between the second and third quarters onwards, as the already mentioned transient

*During the first months of the year consumer inflation has increased. However, with expectations anchored at the goal, shocks to prices of food and regulated, and the depreciation will have a transitory effect on inflation.*



*There are upward risks upon inflation, associated to the uncertainty about depreciation and its effect on domestic prices and to a possible unpinning of the inflation goal from inflation expectations.*

pressures lessen. This trend would continue in 2016, when inflation would converge towards the central point of the range target.

Figures observed up until February showed increases slightly higher than expected by the Bank's technical staff and the market. In the first two months of the year, annual consumer inflation grew by 69 bp and stood at 4.36% in February. As expected, the main contributors to this increase were the food CPI and the tradable CPI excluding food and regulated. These pressures were counteracted by a decline of the domestic price of gasoline that up until that month had been of 3.6%. The Government announced an additional 3.0% decrease, into effect from the last week of February onwards, which should mainly affect the March CPI (Graph 19 and Table 3).

The aforementioned forecasts assume mainly upside risks for 2015. One is the one that hangs over the exchange rate and its transmission to domestic prices. Due to the uncertainty about the evolution of oil prices, capital flows and the future path of the exchange rate, increases in consumer prices should continue to be observed. Likewise, since the jump of the exchange rate would be partly permanent, unlike what took place in prior episodes, the possibility exists that forecasts may be underestimating the transmission to domestic prices and its duration<sup>16</sup>.

Another risk is a likely unpinning of the inflation expectations of the long-term target set by the BDBR. This risk increases as the moving away of the observed inflation from 3.0% is extended or intensified.

Downward inflation risks will be dominated by the possibility that economic growth would be affected more than expected in the case that the impact of the fall in oil prices upon the domestic demand is greater than anticipated. Also, it is also possible that growth of the external demand will be affected if the risks various advanced and emerging economies face, are materialized, which would punish the Colombian economy's performance. The effects of these potential risks would take place in a broader horizon, certainly extending towards 2016.

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16 See Box 2: "Exchange rate and inflation in Colombia" pp.90-94.

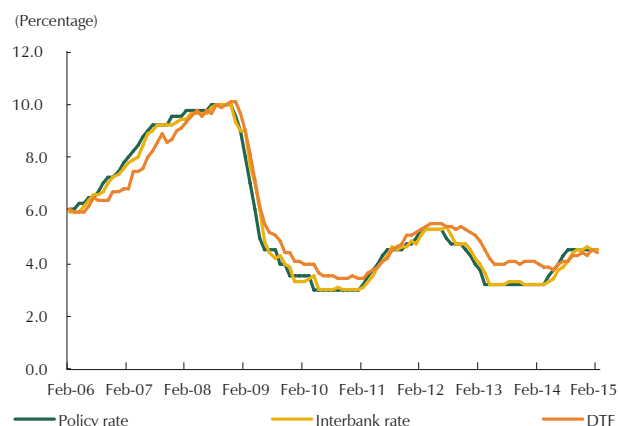


## D. INTEREST RATES AND THE FINANCIAL SECTOR

### 1. The behavior of interest rates during 2014

#### a. Bank interest rates

Graph 21  
*Banco de la República* Intervention Rate, Interbank Rate and DTF.



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

As first above mentioned in this chapter, between April and August 2014 the BDBR increased the reference interest rate by 125 bp (25bp in each month) after having maintained it stable for a little over a year. This increase was fully transmitted to the interbank rate (“tasa de interés interbancaria – TIB”) (Graph 21). The response of the 1-day market rates to the reference rate changes is the first step of the monetary policy transmission to the other interest rates in the economy. In order for this first stage to take place, the Bank provides or withdraws the liquidity required by credit establishments, by means of diverse – either permanent or temporary – mechanisms. In the course of the year, most part of primary liquidity was provided through the purchase of currencies in the foreign exchange market (see Highlighted Text).

The transmission of increases in the reference interest rate towards passive or deposit rates (“DTF”) and commercial loan, treasury and preferential rates has been partial. In contrast, interest rates for consumer loans went down while remaining relatively stable for housing (Table 4).

As of February 2015, capture, commercial loans and consumer interest rates were raised<sup>17</sup> (Table 4) as compared with those at the closing of 2014, which means that transmission continues to take place, albeit in a slow manner. In real terms, all loan interest rates remain at levels below their historical averages calculated since 2000 (with the exception of credit cards) (Graph 22).

<sup>17</sup> Exceptions are the preferential credit interest rate being reduced in comparison with that of the closing of 2014, and the credit card interest rates having maintained their downward trend.

Table 4  
Main Nominal Rates of the Financial System  
(percentage)

Date	Policy	Deposit rates		Borrowing rates						
		DTF	CDT	Consumer	Household Mortgage <sup>a/</sup>	Credit card <sup>b/</sup>	Ordinary	Commercial Preferential	Treasury	Total interest rate borrowing <sup>c/</sup>
Dec-13	3.25	4.06	4.40	17.63	10.77	28.90	10.24	7.03	6.88	9.96
Jan-14	3.25	4.03	4.46	18.22	10.90	28.45	10.75	7.01	7.07	11.06
Feb-14	3.25	3.97	4.39	17.68	10.94	28.08	10.26	7.02	6.97	10.64
Mar-14	3.25	3.89	4.35	17.45	10.97	27.89	10.49	7.00	7.11	10.58
Apr-14	3.50	3.81	4.18	17.19	11.10	27.82	10.50	6.88	6.83	10.57
May-14	3.75	3.79	4.30	17.23	11.14	28.24	10.48	6.96	6.95	10.61
Jun-14	4.00	3.94	4.34	17.41	11.24	27.98	10.46	7.00	6.93	10.41
Jul-14	4.25	4.06	4.48	17.23	11.31	27.91	10.82	7.41	7.28	11.39
Aug-14	4.50	4.04	4.60	17.10	11.30	27.39	10.74	7.34	7.73	11.15
Sep-14	4.50	4.26	4.65	17.28	11.08	27.34	10.93	7.38	7.59	11.34
Oct-14	4.50	4.33	4.69	17.06	11.21	27.01	10.99	7.57	7.50	11.14
Nov-14	4.50	4.36	4.69	17.08	11.05	27.15	10.91	7.58	7.44	10.97
Dec-14	4.50	4.34	4.59	16.70	11.09	27.71	10.60	7.77	7.37	10.55
Jan-15	4.50	4.47	4.85	17.75	11.03	27.49	11.19	7.81	7.43	11.71
Feb-15	4.50	4.45	4.88	17.36	11.09	27.18	10.76	7.43	7.94	11.13

a/ Pertains to a weighted average of loan rates in pesos and UVR (real value units) for home purchases (social housing not included). The UVR's annual change is added to the UVR loan rate before performing the weighting average.

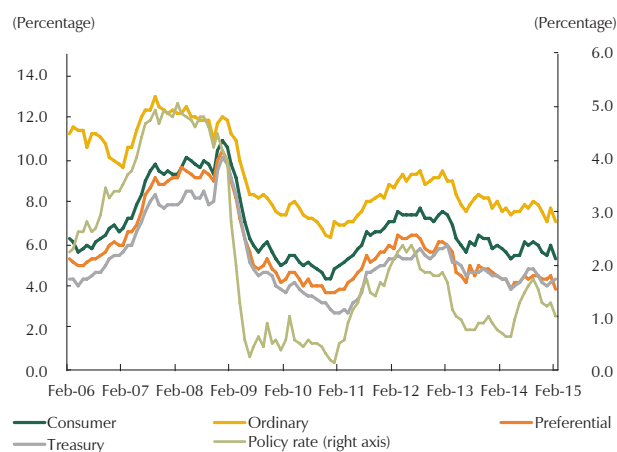
b/ It does not include either one-payment purchases or cash advances.

c/ Pertains to the weighted average of preferential, ordinary and treasury credits. For treasury loans, a weighting of one fifth of their weekly disbursements was established.

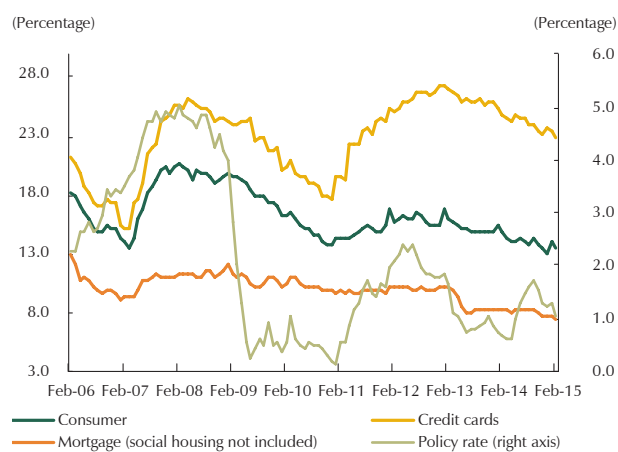
Source: Office of the Financial Superintendent of Colombia (formats 088 and 441)

Graph 22  
Real Interest Rates <sup>a/</sup>

#### A. Commercial Loans



#### B. Household Loans



a/ CPI excluding food was used as deflator.

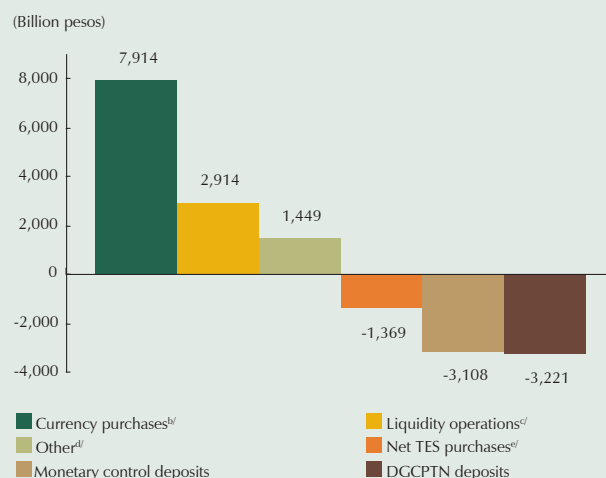
Source: Office of the Financial Superintendent of Colombia; estimates by Banco de la República.

## MONETARY BASE

As of 31<sup>st</sup> December 2014, the monetary base amounted to COP \$69,671 t, in this way recording an annual nominal growth rate of 7%. During this year, the accumulation of foreign reserves through direct purchase auctions was the main primary liquidity source (COP \$7,914 t, i.e., USD \$4,058 b, followed by net liquidity operations (COP \$2,914 t) and other balance sheet accounts (COP \$1,449 t) that at that time had had an expansive effect. Due to the above and given that the increase in the monetary base demand accounted for COP \$4,578 t, liquidity was withdrawn from the economy through higher deposits (COP \$3,221 t), by the National Public Credit and National Treasury Authority (DGCPTN), additional placements of monetary control TES bonds (national government deposits in *Banco de la República* for COP \$3,108 t), the net TES bond sales and maturities (COP \$1,369 t) (Graph A).

The variation of the other accounts in the balance sheet results mainly from *Banco de la República's* income statement (profit & loss account), in which items with higher expansionary impact pertained to remuneration to deposits for the placement of monetary control TES bonds (COP \$436 t) as well as to and corporate – personal and general - expenses for COP \$362 t) and pension expenditures (COP \$203 t).

Graph A  
Origin of the Monetary Base in 2014 <sup>a/</sup>



<sup>a/</sup> Figures take the end of the calendar month into account.

<sup>b/</sup> Includes direct-purchase currency auctions

<sup>c/</sup> Relates to net operations, that is, it takes into account expansion repos and balance of non-reserve interest-bearing deposits at all maturities.

<sup>d/</sup> Within this item the monetary effect of *Banco de la República's* profit and loss statement is included.

<sup>e/</sup> It is the balance of purchases less sales and maturation of securities held by *Banco de la República*.

Source: *Banco de la República*.

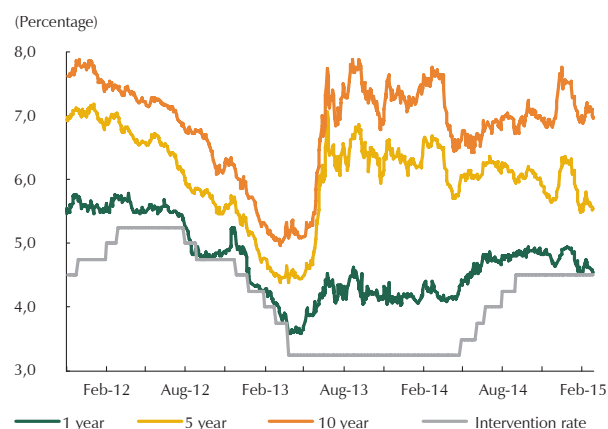
### b. The public debt market

Generally, changes observed and expected in reference interest rates are swiftly transmitted to short-term interest rates, including those issued by the government for securities (TES) which, therefore, began to increase about 60 bp since April 2014, and continued to do so up to 72 bp (their prices went down)<sup>18</sup>. A good part of this change occurred after the 125 bp rise in the reference rate.

On the other hand, the price of medium and long-term TES likewise decreased (rates went up), albeit in smaller magnitudes than that of the short-term bonds. Increases in the rates for these terms were observed mainly in December,

18 There is an inverse ratio between the price and the market interest rate of a TES bond. For instance, if a security offers to pay COP \$110 at maturity and its market price is COP \$100, then the interest rate here is 10%. If the market price of the same security rises to COP \$105, its rate goes down ( $4.8\% = (110/105) - 1$ ) because, in the end, the same amount of COP \$110 will be received.

Graph 23  
Zero-coupon Peso TES Rate and Banco de la República's Auction Expansion Rate <sup>a/</sup>

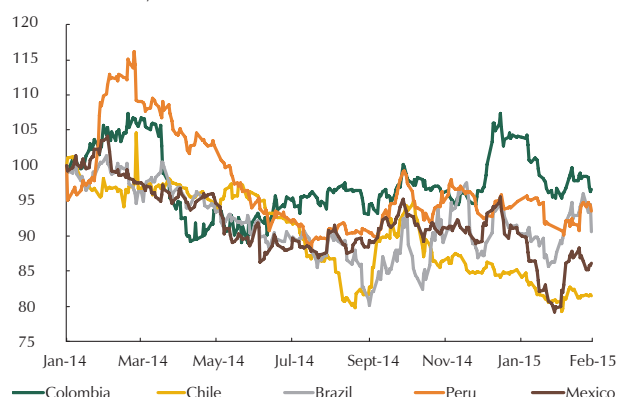


a/ Information to February 27, 2015  
Sources: SEN (electronic trading system) and MEC (Colombian electronic market).  
Calculations by Banco de la República.

Graph 24  
10-year Zero-coupon Rates in Latin America and other emerging countries <sup>a/</sup>

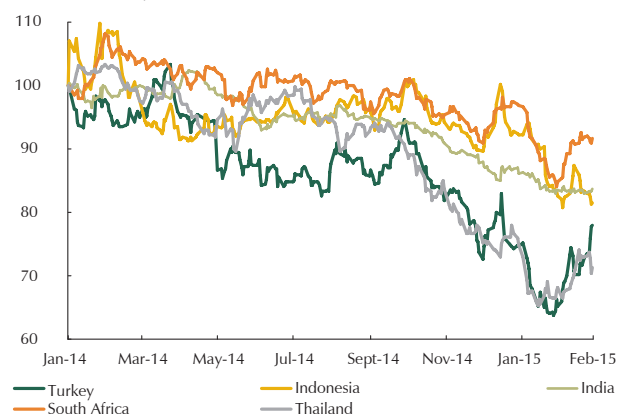
#### A. Latin America

(Base 100 = January 2, 2014)



#### B. Other emerging countries

(Base 100 = January 2, 2014)



a/ Information to February 27, 2015  
Sources: Bloomberg, SEN (electronic trading system) and MEC (Colombian electronic market). Calculations by Banco de la República.

this being a movement that happened to exceed the valuations seen in the previous months (Graph 23).

This late year's TES depreciation trend agreed with the movement of other bonds, of countries in the region and other emerging markets and can be explained, in part, by the deterioration of global economic growth expectations and further uncertainty about when the monetary policy rate would be increased by the Federal Reserve.

Likewise, other local factors helped accentuate TES bond devaluations and caused them to exceed those recorded in other countries (Graph 24). Particularly, concerns regarding the future fiscal situation stood out, given the fall in the oil price and the need for post-conflict financing, this situation being confirmed by the revision of the financing plan for year 2015, where a deficit above that estimated in the Medium-Term Fiscal Framework ("Marco fiscal de Mediano Plazo - MFMP") of June 2014<sup>19</sup> was envisaged. In addition, the discussions held around the fiscal reform may have motivated the sale of securities, as well as expectations of fewer purchases by foreigners in comparison with what had been observed in 2014.

In this respect, it is worth mentioning that the TES market in the previous year obtained very significant inflows from foreigners because, by mid-March, JP Morgan announced the weighting of Colombian bonds in its global emerging markets index GBI<sup>20</sup> that took place gradually between May and September. This added to the improvement experienced in the

19 Additionally, it was revealed that the TES amount to be issued in 2015 would be lower than that envisaged in the "MFMP" submitted in June 2014, and that the extra resources would be obtained from the issue of bonds in international markets for USD \$2,500 b and disbursements of the multilateral banks for USD \$2.600 b.

20 For a more detailed explanations, see Reportes del Emisor number 179, "Análisis del impacto en Colombia de la recomposición de los índices de JP Morgan de deuda local de países emergentes", April 2014.

*During 2014, the TES bond market received very important foreign inflows due, in part, to the increase in the weight of the Colombian bonds in the global emerging market index (GBI) and the improvement of the sovereign debt rating.*

sovereign debt rating<sup>21</sup> generated further demand for TES, mainly in the long-term, from foreign investors<sup>22</sup>.

Due to this, the most significant TES bond valorizations in 2014 occurred between March and April. In the remainder of the year (from May through November), the long-term securities exhibited different trends according to an increased risk perception in the face of a world economy slowdown, and uncertainty regarding the local fiscal situation having motivated agents to reduce their portfolios' term<sup>23</sup>. Additionally, debt swaps operations by the Government having increased the supply of long maturity securities, as well as expectations for higher inflation, contributed to support this trend.

So far 2015, as of the closing of February, the TES bond prices have recovered in comparison to the closing of December 2014 like the bonds of other emerging [markets(?)]. In good part, this valorization took place in January and is explained by a world liquidity that continues to be ample thanks to the new economic stimulus measures announced and implemented by some central banks (like the European Central Bank and the Monetary Authority of China), and in the face of expectations in January of the policy rate being maintained by the Federal Reserve at expansionary levels for a prolonged period. Besides, with regard to Colombia, a further increase in its share in the diversified index GBI is expected in the face of a potential reduction in the participation of other countries (like, for example, Russia, Ukraine, and Nigeria).

However, prices suffered downward pressures in February due to recent news regarding the United States Economy with respect to an increased likelihood of a monetary normalization process to be initiated earlier than expected in January, along with higher inflation expectations in Colombia.

According to the already mentioned factors, in 2015 until February 2, there were important foreign investors' inflows amounting to COP \$3,582 t<sup>24</sup>.

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21 Moody's improved the rating of the Colombian sovereign debt based on the country's higher growth expectations despite external conditions, and the long-term support that the 4G infrastructure program would give to the economy, as well as the fiscal management having allowed for a deficit moderation along with an ongoing compliance with the fiscal rule.

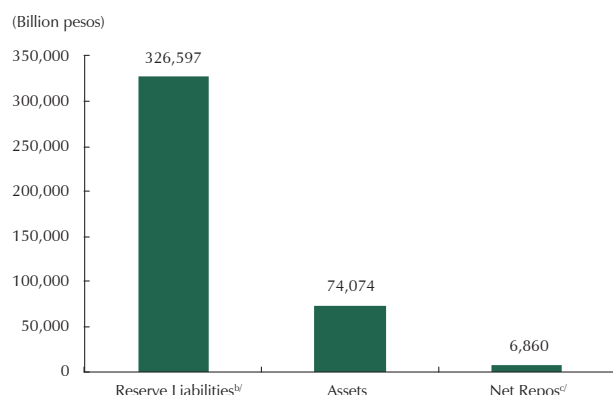
22 According to *Banco de la República* estimations with the Central Securities Depository ("Deposito Central de Valores – DCV"), the share of foreign agents in the TES bond market in pesos and real value units ("unidades de valor real – UVR") shifted from about 6.5% in January to nearly 15.4% in December 2014.

23 They sold long-term securities and replaced them with medium-term securities.

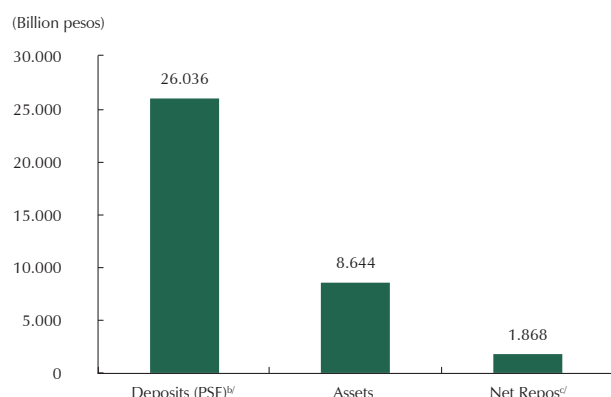
24 COP \$2,826 t in the spot market, and COP \$ 756 t in the forward market (Source: *Banco de la República*).

Graph 25  
Net Repos, Reserve Liabilities and Credit Establishments' Assets<sup>a/</sup>

A. Balance



B. Annual change



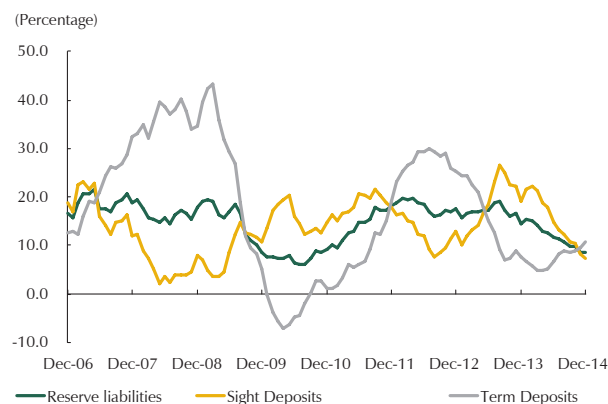
a/ Balance at Friday, 26 December 2014; annual change at Friday, 27 December 2013.

b/ Pertains to sight and term deposits in the credit establishments.

c/ Net remunerated non-reserve deposits.

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

Graph 26  
Annual Nominal Growth of Reserve Liabilities, Sight and Term Deposits<sup>a/</sup>



a/ Average annual percentage change taken from average monthly data (calculated in turn from weekly information)

Source: Banco de la República.

## 2. Main credit establishments' accounts<sup>25</sup>

The attraction of funds processes by means of deposits (liabilities subject to the legal reserve -“PSE”- and credit placement by the financial system are determinant in the conveyance of monetary policy decisions. Thus, analyzing the main liability component is relevant, since it responds to resource capture operations by means of demand and term deposits, and the main asset items reflecting the granting of credits through portfolio and investments in securities.

The annual growth of the PSE in 2014 slowed down (Graphs 25 and 26). Particularly, during the first quarter, deposits grew on average 15% on an annual basis, while in the last three months of the year the rate was 9.1%. Besides, the “PSE” experienced a slight recomposition from demand deposits to term deposits in the course of the year (Graph 26). For the same period, the ample monetary aggregate (M3) grew 12.1% on average, in this way keeping the slowdown taking place since the second half of year 2013 (Graph 27).

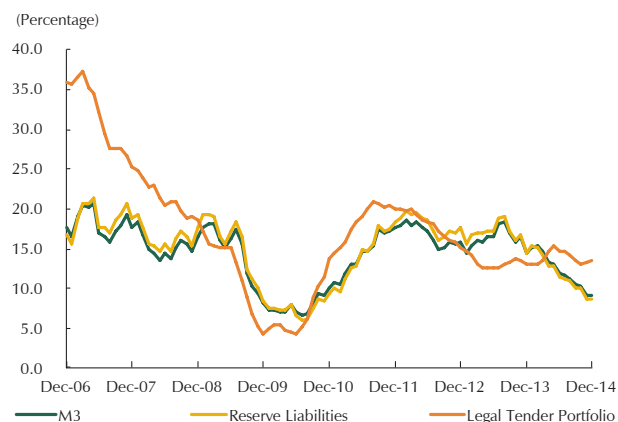
In 2014, on the assets side, the annual average growth of the foreign currency (M/E) portfolio expressed in U.S. dollars was zero, while that of credits in national currency (M/L)<sup>26</sup> exhibited a 13.9% rate of increase. Thus, the total (M/L más M/E) portfolio kept a growth rate (12.8%), higher than the nominal PIB increase. In real terms, the portfolio in national currency grew at a similar rhythm than in the previous year (10.8% on average) (Graphs 27 and 28).

25 Credit establishments' information offered in this section is obtained from the Office of the Financial Superintendent of Colombia's format 281. The figures pertain to Friday 26th December 2015. This due to the fact that beginning on 1<sup>st</sup> January 2015, credit establishments must report their account information in compliance with the international financial reporting standards (IFRS), and because of the presence of significant methodological changes; for this reason, a comparison of data of January 2, 2015, with information of any other earlier date is not necessary.

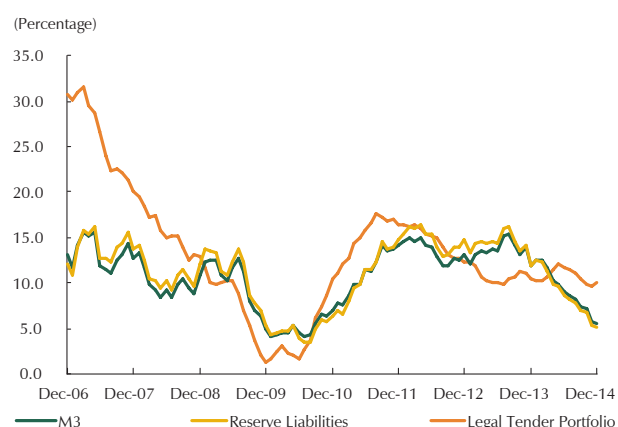
26 Includes mortgage portfolio securitizations and operations relating to sales of credits for management through trust rights.

Graph 27  
Annual Growth of M3, Reserve Liabilities and Legal Tender Portfolio<sup>a/</sup>

#### A. Nominal growth



#### B. Real growth<sup>b/</sup>



a/ Annual percentage change from average data of monetary months.

b/ Deflated by non-food CPI.

Source: Banco de la República.

By type of credit, in the portfolio in Colombian pesos, -commercial and microcredit- loans granted to enterprises as well as mortgage credits showed both nominal and real acceleration in the first half and a slowdown in the second half of the year. As of December 2014, credits to enterprises expanded by 13.6% (Graph 29), while the mortgage portfolio as adjusted by securitizations grew at a 14.7% rate. The dynamics shown in the balance of consumer credits was lower in 2014, but by the end of the year and tended to accelerate and grew 13.1%. In real terms, the performance of the different types of portfolios was similar to that exhibited by the nominal series (Graph 29).

With respect to net investment in Colombian pesos, its balance expanded 0.4% against the closing of the previous year (Graph 28). This slight increase, in contrast with the credit expansion to households and enterprises it points out to a recomposition process within the credit establishments' assets in favor of the portfolio in legal tender.

### 3. Some risk measures in the financial system

This section describes the exposure to credit and funding risks in entities pertaining to the financial system, risk in the TES market<sup>27</sup> is analyzed. As of December 2014, in the default indicator (DI) an increase with no write-offs occurred, as well as a

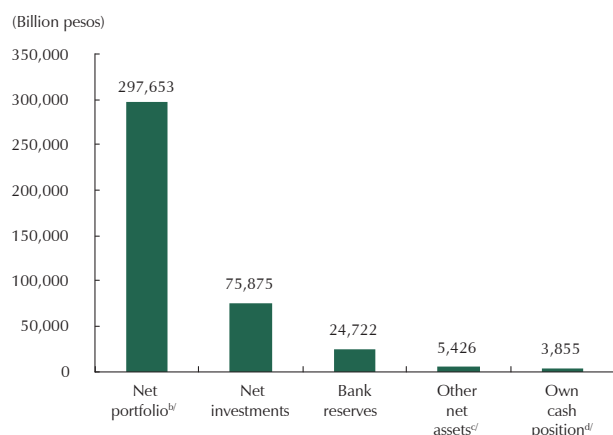
decrease with penalties against the closing of the previous year. For the quality indicator (QI), the same value was observed. Likewise, provisions remained at levels helping cover the total past-due portfolio, except of the microcredit type.

27 The default indicator (DI) without penalties or write-offs is defined as the ratio between the past-due portfolio (of credits remaining unpaid for thirty days or more) and the total portfolio. The DI with penalties or write-offs is constructed as the ratio between the past-due portfolio and the total portfolio, plus the punishments (i.e. assets that, because they are deemed to be uncollectible or lost, have been written off from the balance sheet in accordance with the legal provisions in force); and the quality indicator (QI) is calculated as the ratio between the risky portfolio (that with a rating other than A, in a scale ranging from A through E, where A is the best rating.)

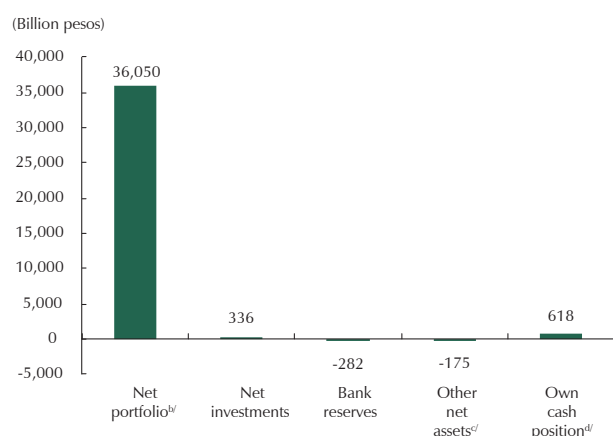


Graph 28  
Credit Establishments' Main Assets <sup>a/</sup>

A. Balance



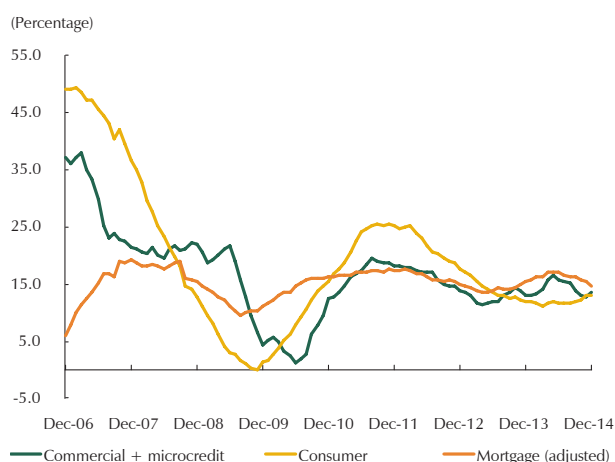
B. Annual Changes



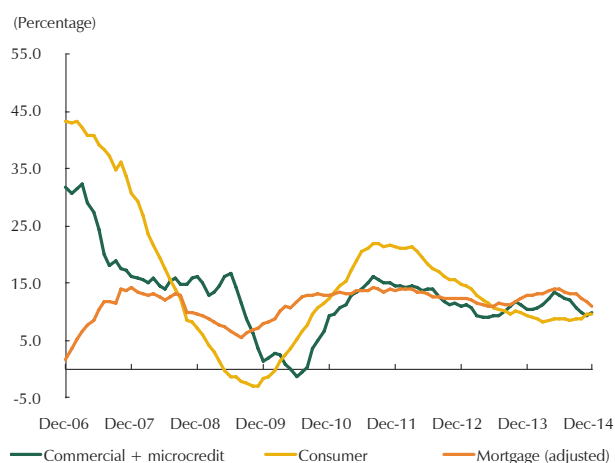
a/ Balance at Friday, 26 December 2014; annual change at Friday, 27 December 2013.  
b/ Excluding mortgage-loan securitizations and any other operation involving divestments of portfolio to be managed through fiduciary rights.  
c/ Net liabilities different from net reserve-liability and non-reserve deposit repos.  
d/ Excluding stockbrokers. Absolute change relates to changes in US dollars multiplied by the average exchange rate for the period.  
Source: Office of the Financial Superintendent of Colombia; estimates by Banco de la República.

Graph 29  
Loan Portfolio Annual Growth By Type <sup>a/</sup>

A. Nominal



B. Real



a/ Annual percentage variations of average monthly data (calculated with weekly data).  
b/ The CPI excluding food was used as deflator.  
Source: Banco de la República.

On its side, the liquidity indicator suggests that the financial system has the liquid resources required to sufficiently meet its short-term contractual and non-contractual obligations. In fact, when considering a hypothetical adverse scenario with the simultaneous occurrence of a deposit withdrawal, the non-renewal of contractual obligations, failure in the collection of a given portfolio, and depreciation in the value of securities, no entity of any type whatsoever would have problems to cover its requirements within a term of less than thirty days.

As for risk in the TES bond market, exposure to these financial system securities increased with respect to December 2013, mainly in the case of

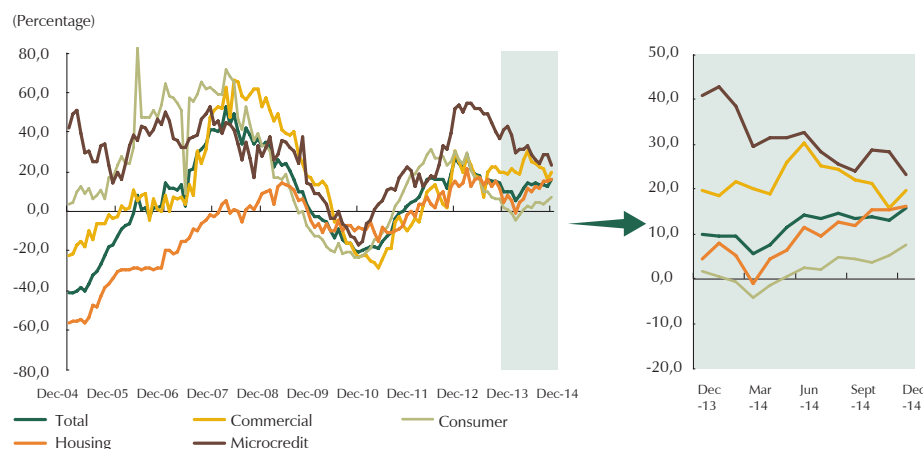


funds administered by trust companies and those of the banks' own position. Nevertheless, potential losses likely to be faced in a one-day horizon were reduced for all administered entities and portfolios.

#### a. Credit risk

As of December 2014, the total past-due portfolio reported a real annual 15.8% variation, this figure being higher than that of December 2013 (10.1%). A decrease stands out in the growth rate during the first months, followed by a greater increase at the end of the year. By credit types, the most notorious increment in obligations due was seen in housing (16.1% against 4.3% in December 2013), while the microcredit type recorded the sharpest downturn (shifting from 41.0% in December 2013 to 23.4% in the same month in 2014) (Graph 30). Microcredit deceleration could be explained, in part, by the past-due portfolio purchases from credit establishments carried out within the Farming Solidarity Fund ("Fondo de Solidaridad Agropecuario - Fonsa").<sup>28</sup>

Graph 30  
Real Annual Growth in Non-performing Loans <sup>a/</sup>

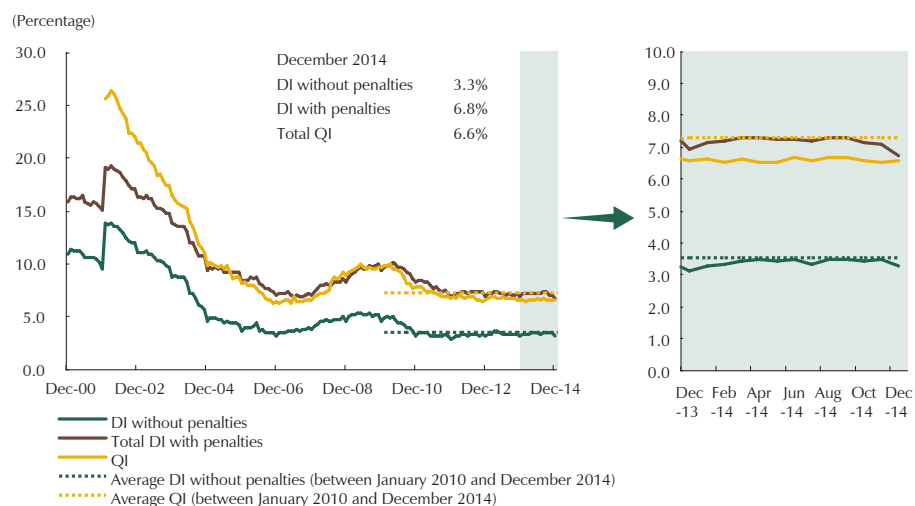


a/ Deflated by the CPI. Special financial institutions (second-tier banks) are not included.  
Source: Office of the Financial Superintendent of Colombia; estimates by Banco de la República.

On the other hand, gross portfolio exhibited a relatively stable real annual growth rate (11.2% in December 2014 as compared with 11.4% in the same month in 2013). In this manner, the DI without write-offs showed an increase in that period from 3.1% up to 3.3%. In opposition to this, the DI with write-offs dropped from 7.0% to 6.8%, which could be explained by the lower growth of the written-off loan portfolio (having passed from 14.4% in December 2013 to 1.4% in the December 2014) (Graph 31). It is worth pointing out that, as

28 The Fonsa is a special account dependent on the Ministry of Agriculture. Pursuant to Ministry of Agricultural and Rural Development's Decree 355 of 2014, farming sector portfolio (due as of 31 August 2013) would be purchased through the Fund for the Farming Sector Finance ("Finagro") from financial entities, in this way causing this type of credits to be removed from these institutions' balance sheet. This program benefits producers whose total assets, including those of their spouse or permanent companion, do not exceed 700 "SMMLV" (legal minimum monthly salaries in force).

Graph 31  
Default and Gross Loan Quality Indicator



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

shown in Table 5, the microcredit portfolio showed the highest increase in the DI, this being explained by the greater slowdown of its gross portfolio with respect of that reported in its past-due portfolio.

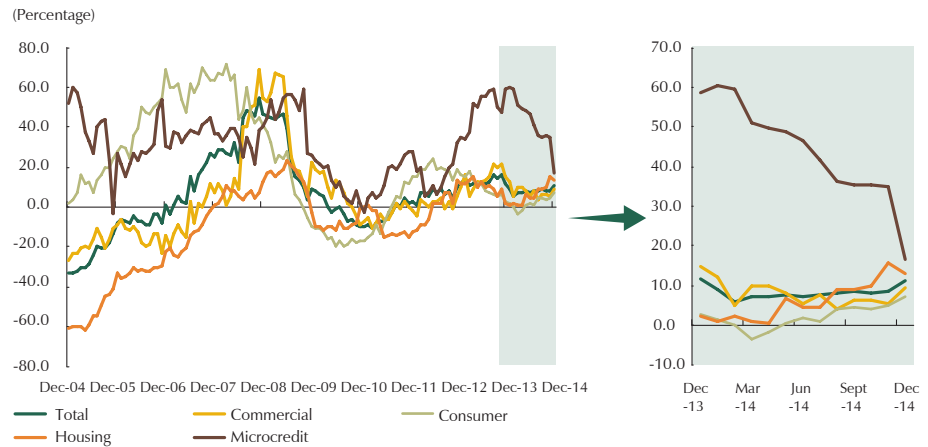
Against December 2013, the risky portfolio showed a decrease in its annual growth rate by shifting from 11.8% to 11.1% a year later, thus letting the QI remain relatively stable around 6.6% during the analyzed period (Graph 31). By types, commercial and microcredit loans experienced a reduction in their risk portfolio while there was acceleration for housing and consumer credits (Graph 32). In the microcredit case, the risk indicator rose, despite deceleration in its risk portfolio as a consequence of a more significant decrease in its gross portfolio growth rate.

Table 5  
Credit Risk Indicators by Credit type  
(percentage)

Credit type	Default Indicator (without penalties)			Default indicator (with penalties)			Quality indicator		
	Dec-13	Dec-14	Average from December 2013 to December 2014.	Dec-13	Dec-14	Average from December 2013 to December 2014.	Dec-13	Dec-14	Average from December 2013 to December 2014.
Total loan portfolio	3.13	3.26	3.54	7.00	6.75	7.78	6.60	6.60	7.28
Commercial	1.95	2.08	2.10	4.40	4.42	4.23	6.53	6.37	6.91
Consumer	4.45	4.38	5.02	11.70	11.11	11.11	7.03	6.91	8.06
Mortgage	5.42	5.51	7.45	6.50	6.30	8.76	4.12	4.08	5.65
Microcredit	6.37	7.45	5.66	13.00	13.49	10.88	10.81	11.94	8.78

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

Graph 32  
Real Annual Growth in Risky Loans <sup>a/</sup>



a/ Deflated by the CPI. Special financial institutions (second-tier banks) are not included.  
Source: Office of the Financial Superintendent of Colombia; estimates by Banco de la República.

Lastly, the coverage indicator calculated as the ratio between provisions and the past-due loan portfolio decreased 145.9% in December 2013 to 137.6% in December 2014, particularly due to the increased balance of the past-due portfolio. It is worth stressing that the worst deterioration took place in the indicators of microcredit and commercial loans<sup>29</sup>, although the latter continues to exhibit the highest indicator among all the types of credits. However, provision levels keep covering the whole past-due portfolio in all the types of loans excepting microcredits, the indicator of which stood at 8.6% at the closing of 2014.

## b. Liquidity risk

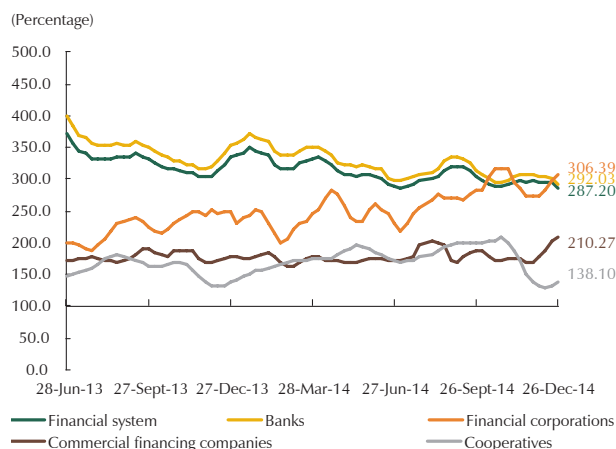
An indicator serving to measure liquidity availability in entities for them to meet their obligations is the  $IRL_R$ , defined as the ratio between the available balance and liquid investments (liquid assets), and an estimation of the short-term liquidity requirements (30 days). If the  $IRL_R$  is higher than 100%, the entity has sufficient funds to cover its 30-day obligations; otherwise, it might have problems to face short-term liabilities.

Between December 2013 and December 2014, credit establishments' liquidity level fell mainly due to the banks' dynamics. Nevertheless, none of the sectors analyzed – i.e., banks, commercial financing companies (CFC), financial corporations (FC) and financial cooperatives – shows difficulties in meeting short-term obligations.

*The liquidity indicator suggests that the financial system has the necessary funds to meet in a sufficient manner its short-term contractual and non-contractual obligations.*

29 The indicator for microcredit shifted from 108.3% to 88.6% between December 2013 and December 2014, and from 224.5% to 208.8% for the commercial portfolio.

Graph 33  
30-day Liquidity Risk Indicator <sup>a/</sup>



a/ Corresponds to a four-week moving average.  
Source: Office of the Financial Superintendent of Colombia; estimates by Banco de la República.

Comparing the observations from the previous year, when banks were reporting the highest indicators, an analysis of 2014 shows that the financial corporations (FCs) were those having exhibited the greater level (Graph 33). It is important to mention that financial cooperatives continue to show the lowest  $LRI_R$  which, in addition, has diminished since October 2014.

Although the  $LRI_R$  includes, by construction, some deductions to the elements composing it (net liquidity requirements and liquid assets), in order to assess whether credit establishments are able por not to meet their short-term obligations in the face of a more adverse scenario, an additional stress exercise is carried out. Said exercise suggests higher levels in

the withdrawals of deposits, the non-renewal of contractual obligations, non-performance or defaults in portfolio collection, and the cost associated to asset liquidation<sup>30</sup>. The results show

that even in this scenario none of the types of entities analyzed would have any problems to cope with their short-term obligations.

## b. Risk in the TES bond market

### 1. Analysis for the financial system

Financial institutions can have TES bonds as a part of their assets (own position) or as a portion of clients' funds administered by them (third-party position). As of December 26 2014, the value of the financial system's TES portfolio in own position and of the administered funds amounted to a COP \$170.5 t, where the larger participations pertain to the position administered by pension and severance funds (30.2%), resources administered by the trust companies (28.5%), and the commercial banks' own position (21.3%). With respect to December 2013, the TES balance increased by COP \$23.7 t (16.1%) as explained by the increase taking place in the trust companies' third-party positions (COP \$17.9 t) and the banks' own position (COP \$4.5 t). It is worth mentioning that, in the first case, the increase in the holding of TES was due almost totally to increased foreigners' investment in the local market<sup>31</sup>.

30 It is important to point out that different levels in the adverse scenario are considered for each type of entity, as calculated on the basis of the historical data examined.

31 The increase in the foreigners' portfolio administered by the trust companies was almost COP \$17 t.

*The VaR reduction reflects lower market risk exposure for all the financial system's entities and clients having delegated to them the administration of their investments.*

As in the case of the other TES holders, financial entities may also have to confront revaluation losses in the face of a fall in the price of this type of securities (the market risk). This risk is quantified through the evolution of the TES balance and using a measure known as value at risk (VaR) that, from returns observed, gives the estimation of the maximum loss that an institution can experience in its investment or administered portfolio in one-day horizon, for a given confidence level<sup>32</sup>. It is important to mention that this risk affects in a different way entities and administered portfolios composing the financial system, depending on their nature.

From the TES portfolio composition, the VaR was calculated at a 99% confidence level and a one-day horizon and incorporating the observed volatility in the price of these specific securities. The VaR's monthly rolling average shows that the system's maximum loss estimated would reach 0.4% of the TES portfolio in December 2014, including the own and the third-party position) Generally, the fall witnessed in the VaR with respect to December 2013 (0.5%) was explained by the lower volatility of returns at the end of 2014. This lessening in the VaR reflects a decreased market risk for all the financial system's entities and those clients having delegated to them the administration of their investments. It is worth stressing that despite the VaR having remained stable throughout 2014, it nevertheless exhibited higher volatility in the course of the first six months of the year.

## ii. Analysis by type of entity

The VaR is analyzed below according to the portfolio types, depending on the nature of each business. In the first place, the market risk of the financial entities' own position<sup>33</sup> that they should undertake against their profit and loss statement is examined, and secondly that of administered trust and stockbroker companies' portfolios the losses of which are borne by the clients. Finally, the exposure of resources administered by pension and severance funds is analyzed because they deserve special treatment since, as it will be explained, short-term changes in the value of these portfolios is not the most adequate risk measure for their contributors<sup>34</sup> (Graph 34).

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32 For illustration, if an institution's VaR at a 99% confidence level is 5%, this indicates that the maximum loss confronted by this entity in one day would be 5.0% of its portfolio value and it could only be exceeded by a 1.0% probability.

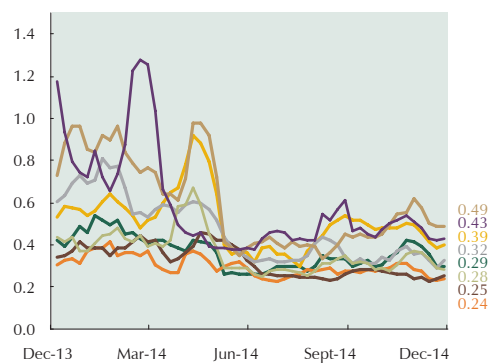
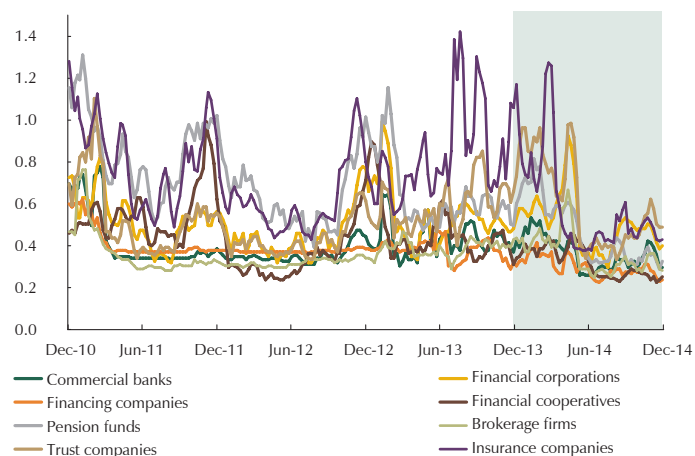
33 Credit establishments, insurance companies, and the own position of pension and severance funds, trusts, and stockbroker companies.

34 Overall, the analysis of these funds includes both mandatory and voluntary pensions, since this information cannot be separated.

Graph 34  
Monthly Moving Average of VaR

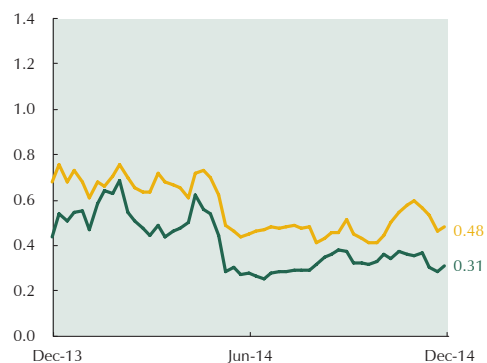
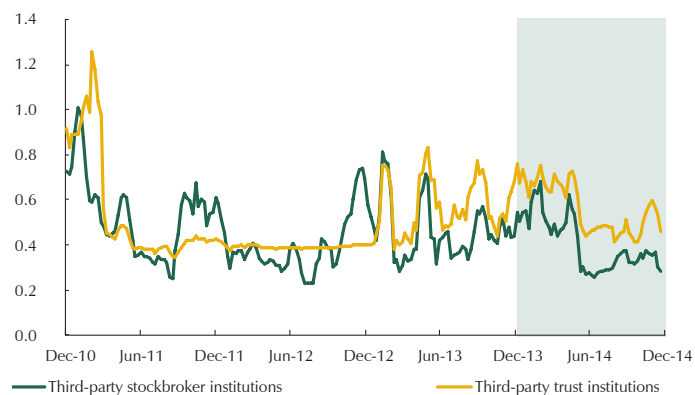
### A. Own position

(Percentage of exposed balance)



### B. Third-party position

(Percentage of exposed balance)



### C. Pension funds' third-party position

(Percentage of balance exposed)



Source: DCV ("Deposito Central de Valores" -Central Securities Deposit-); estimates by Banco de la República.

*In simulating a shock on the public debt securities yield curve, the entities, and portfolios most affected (as an equity proportion) by TES depreciation would be trust companies in own position, insurance companies, and resources administered by the pension and severance funds, in this order.*

As of December 201, the value at risk (VaR) of the already mentioned financial entities' own position decreased (from 0.51% to 0.33%) with respect to December, this meaning that they would have a lower portfolio impairment loss risk. By type of institution, the most significant reductions are shown by pension and severance funds, trusts, and insurance companies having respectively recorded a TES bond balance of COP \$0.2 b, COP \$1.7 b and COP \$10.3 b.

It is worth highlighting that the exposed balance of the financial entities' own position does not match their total TES balance, but the amount classified into those negotiable securities and available for sale that must be valued at market prices on a daily basis<sup>35</sup>. In this manner, these entities might recompose their investments in order to mitigate their risk exposition by converting their negotiable or available-for-sale securities into securities held to maturity that do not have this market valuation requirement; however, their liquidity risk would be affected since the latter cannot be liquidated prior to maturity<sup>36</sup>.

As for the third-party position as of December 2014, the VeR declined from 0.6% to 0.4% for portfolios administered by the stockbroker companies, and from 0.7% to 0.5% in the case of trusts, which shows that the investors' potential losses decreased with relation to what had been observed in December 2013 (Graph 34, panel B). As already mentioned, a significant portion of the portfolio administered by the trusts pertains to foreigners' resources, thus these devaluations do not mean direct loss for local agents. Nevertheless, a substantially increased risk might unleash abrupt outgoing portfolio investment flows.

Regarding the position of third parties in the case of pension and severance funds, it is important to mention that the VaR does not properly measure the degree of vulnerability to which these portfolios are exposed, taking into account that their objective is to obtain the payment of a pension for the members. One of the schemes under which pensioners have access to this monthly flow of resources is the annuity plan ("*renta vitalicia*"). In this case the pension amount is calculated by taking the pensioners' portfolio value at the time of retiring and projecting the flow of resources forward into the future for all the years in which monthly payments have to be made to them. Just like any flow in the course of time, this must be discounted at a given interest rate. Consequently, when long-term interest rates raise, although the portfolio value drops, the discount factor drops as well and, therefore, the pension amount

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35 On their side, according to Chapter I of the Basic Financial and Accounting Circular Letter, values classified as investments to be held to maturity are valued exponentially from the internal rate of return calculated on the basis of one year.

36 It is worth mentioning that because securities held to maturity are not valued at market prices, they do not affect the VaR estimation but, in contrast, they do affect the liquid asset valuation.



remains stable. To this extent, long-term investments at fixed interest rates with a high VaR level serve to protect the pension amount.

Even so, in order to maintain the comparison standard, the VaR of third-parties' portfolios administered by pension and severance funds is reported. In this period, a decrease of 34 bp in the VeR is observed between December 2013 (0.8%) and December 2014 (0.5%), despite the fact that its exposed balance went up during that period (Graph 34, Panel C).

By simulating a shock on the yield curve of public debt securities<sup>37</sup>, the most affected entities and portfolios (as an equity proportion) by TES depreciation would be the trust companies in an own position, insurance companies, and resources administered by pension and severance funds<sup>38</sup>, in this order. As already mentioned in the case of pension and severance funds, the highest exposure to the market risk, given their business nature, is explained by the concentration of their investments in longer-term public debt securities.

Finally, it is important to mention that conditions prevailing in the international context, particularly the plunge in oil prices and the local currency depreciation may have implications for the Colombian financial system. With respect to the shock impact on the crude oil price, a low exposure of the financial system to the oil sector firms (having accounted for nearly 3.7% of the commercial portfolio as of December 2014) is evidenced. Likewise, analysis carried out on a group of firms deemed to be exposed to nominal depreciation reveal a low share (close to 4.2%) of this group in the balance sheet of the credit establishments' commercial portfolio. Sensitivity exercises about entities solvency face to gradual impairments in these debtors' credit quality confirm that no entity would show indicators below the regulatory minimums required.

*The fall in the oil price and the nominal depreciation of the Colombian peso would not have significant implications in the Colombian financial system due to the low exposition of the system to firms in the oil sector and companies in the real sector with exchange mismatches.*

## E. EXTERNAL BALANCE AND EXCHANGE RATE POLICY

During 2014, Colombia continued to enjoy its good external financing conditions. On one hand, the international context was favorable in the sense that the major advanced economies kept an expansionary monetary policy, and due to the fact that the withdrawal of the monetary stimulus by the Federal Reserve did not involve increases in financing costs for the country. On the other hand, Colombia did not experience in the first half of the year the fall in the terms of trade suffered by other commodity exporting countries, thus being

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37 Shocks consist of a parallel increase of 400 bp on the TES bonds' zero-coupon curve. This curve shows the ratio between the yields of securities with similar credit quality but different maturity periods. Given the inverse proportion between the security and its interest rate, an increase on the curve results in a price reduction.

38 In the case of administered portfolios, the loss as the proportion of equity is estimated from the autonomous assets of each one of these portfolios and not those of the administering entity.



*During 2014, the Colombian economy recorded a current account deficit of 5.2% of the GDP, above that observed one year earlier (3.2% of the GDP). This broadening originated mainly from the negative balance of the property account in contrast with the surplus obtained in 2013.*

able to keep its growth prospects at good levels. It is worth mentioning at this respect that the price of oil remained above USD \$100 per bbl. during the first half of the year.

In addition, with respect to public debt, JP Morgan announced in March the rebalancing of some of its emerging markets bond indexes in local currency<sup>39</sup> in favor of Colombia. This helped the country to receive more resources from foreign portfolio investment (mainly during the second and the third quarters) and led the Colombian peso to appreciate up to the middle of the year, more than other currencies in the region. In the second half, simultaneously with the fall of the international price of oil by nearly 50%<sup>40</sup>, the Colombian peso depreciated in both nominal and real terms and went back to levels similar to those of 2009.

In this manner, the financial account reported net capital inflows equal to 6.3% of the GDP (the foreign reserves variation), the balancing entry of which was a current account deficit of 5.2% of the GDP, and an increase in foreign reserves.

In this respect, *Banco de la República* for the whole year, except for the last days of December, maintained its foreign reserves purchasing program initiated in February 2012, and acquired currencies at the exchange market for USD \$4,057.6 b with the use of the direct purchase auction mechanism. Most part of the acquisitions (USD \$3,000 b) concentrated between the second and third quarters. With this policy, gross foreign reserves amounted to USD \$47,328.1 b. Since February 2012, the Bank accumulated \$15,670.8 b. At the meeting of December 2014, the BDBR announced that, taking into account the levels of the external liquidity risk coverage, as well as the changes occurring in the foreign exchange market, the Bank would not continue its foreign reserves purchasing program.

## **1. Colombia's external balance in 2014 and projections for 2015**

In the course of 2014, the Colombian economy reported a current account deficit of 5.2% of the GDP (USD \$19,783 b), higher to that recorded in the previous year (USD \$12,333 b, i.e., 3.2% of the GDP). The broadening of the current deficit as a proportion of the GDP originated mainly in the negative balance of the properties account in contrast with the surplus reached one year earlier (Table 6). The trade deficit was the result of the increase (8%) in imports and the decrease (-5.5%) in the exported value.

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39 For a detailed explanation, see Box 2, "Analysis of the impact in Colombia of the recomposition of the JP Morgan emerging countries' local debt indices in the Report to the Congress of July 2014.

40 See Box 1 "Determinants of the recent reduction in the price of oil, assessment of predictions and prospects" in the Inflation Report of December 2014.

Table 6  
Colombia's Balance of Payments  
(Annual flows in million dollars)

Current account		
	2013 (pr)	2014 (pr)
Current account (A + B + C + D)	(12,333)	(19,783)
(Percentage of GDP)	(3.2)	(5.2)
A. Goods and services (1 + 2)	(2,749)	(11,280)
1. Goods (a - b)	3,180	(4,694)
a. FOB Exports	60,281	56,982
b. FOB imports	57,101	61,676
2. Services (a - b)	(5,929)	(6,586)
a. Exports	6,859	6,937
b. Imports	12,788	13,523
B. Factor income	(14,178)	(12,859)
Receipts	3,610	4,042
Payments	17,788	16,901
C. Current transfers	4,594	4,357
Receipts	5,473	5,307
Payments	880	950
Financial account and variation of gross foreign reserves (GFR)		
	2013 (pr)	2014 (pr)
Financial account (A+B+C+D)	(11,836)	(19,512)
(Percentage of GDP)	(3.1)	(5.2)
A. Direct investment (ii-i)	(8,547)	(12,155)
i. Foreign in Colombia (FDI)	16,199	16,054
(Percentage of GDP)	4.3	4.2
ii. Colombian investment abroad	7,652	3,899
B. Portfolio investment (1+2)	(6,978)	(11,631)
1. Public sector (ii-i)	(7,425)	(15,428)
i. Foreign portfolio investment (a+b)	7,847	15,513
a. International markets (bonds)	4,989	6,688
b. Domestic market (TES)	2,858	8,825
ii. Portfolio investment abroad	422	85
2. Private sector (ii-i)	447	3,797
i. Foreign portfolio investment (a+b)	3,226	3,148
a. International markets	1,300	(685)
b. Domestic market	1,926	3,833
ii. Portfolio investment abroad	3,673	6,945
C. Other capital flows (public sector + private sector)	(3,257)	(163)
D. Reserve assets	6,946	4,437
Errors and omissions	497	270
Memo item:		
Financial account without change in foreign reserves	(18,782)	(23,949)
Change in foreign reserves	6,946	4,437

pr: Preliminary.

Note: Results from now on will be presented following the recommendations by the FMI in its Balance of Payments Manual, sixth version. For additional information and methodological changes, see <http://www.banrep.gov.co/balanza-pagos>

Source: Banco de la República.

*External sales decrease originated particularly from the generalized drop in the international prices of major products of mining origin exported by the country, where the sharp fall of the oil price in the second half of the year stands out.*

The reduction in the country's external sales was mainly due to the fall of the international prices of major mining products, among which the heavy drop of the oil price (33%) in the last quarter of the year stands out <sup>41</sup>. Thus, reductions in annual terms for export prices implied were as follows: coal, -12.8%; crude oil, (-11.6%); gold, -10.3%, and ferronickel -2.0%. An annual reduction, though in lesser magnitude (-4.8%), was experienced by external sales of industrial products. This decrease was partially offset by the increase in the exported values of agricultural products (coffee, flowers, and bananas) that, overall, recorded an annual 18% growth.

In contrast, external purchases of goods of the Colombian economy stood at historically high levels. This was particularly explained by the dynamic internal demand that propelled the purchase of consumer and capital goods and higher imports of fuels deriving from the closure of Reficar<sup>42</sup>. So, the annual growth in 2014 of external purchases was as follows: consumer goods, 8.7%; intermediate goods, 8.8%, and capital goods 7.3%.

Foreign trade in services reported a higher deficit than that observed in 2013, mostly as a reflex of the highest net external payments relating to travel. The deficit balance of trade in goods and services was in part offset by fewer revenues in the factor income item as a result of the decrease in profits obtained by companies with foreign capital, particularly those of the mining-energy sector. This factor income decrease was not higher due to increased payments of interest earned on portfolio investments. On the other hand, net receipts from transfers recorded an annual fall of 5.2% as a consequence of fewer remittances received from Venezuela.

The financial account<sup>43</sup>(including reserve assets) reported foreign capital income for USD \$36,260 b, minus Colombian capital outflows amounting to USD \$12,311 b and an accumulation of foreign reserves worth USD \$4,437 b.

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41 Additionally, the closure of the Cartagena Reficar refinery and the restrictions to coal exports in some ports in early 2014 deepened the drop of the exported value in these products.

42 The closure of Reficar caused both a fall in the exports of derivative products and a significant increase in the import of fuels designed to replace production for the internal market. This was partially offset by the exports of crude oil not loaded onto the refinery that is estimated overall at a higher trade deficit between 0.15% and 0.20% of the GDP (see Box 2: "New refinery in Cartagena: an impact on the country's production and trade balance", in the Inflation Report of September 2014).

43 According to the sixth version of the IMF balance of payments Manual, the financial account appears with the same sign (positive or negative) of the current account. The financial account is the result of the difference between the active and passive flows. If the current account is negative (deficit), the financial account is negative as well, which indicates that the Colombian economy had [to have] recourse to external financing (liabilities) and/or the liquidation of its external assets to finance its current over-expenditure. On the contrary, if the current account is positive (surplus), the financial account will show a positive sign too, which means that the country has a lending capacity to grant financial resources to the rest of the world.

*The projection of the external balance sheet for 2015 is set in a context of slight recovery in the growth of the country's commercial partners', but with for basic products at lower international prices.*

In net terms, foreign direct investment and the portfolio investment<sup>44</sup> contributed USD \$12,155 b and USD \$11.631 b respectively to the financial account (Table 6). This item recorded inflows amounting to USD \$16,054 b, equal to an annual reduction of -0.9% (USD \$ 146 b). 40% of the FDI flow was received by the oil and mining sector; 46% overall went to enterprises operating in activities pertaining to industry, transport, communications, and financial and managerial services, and the remaining 14% was destined to commerce, hotels, and electricity. Likewise, FDI capital outflows from Colombia amounting to USD \$ 3,899 b were recorded, this figure being lower by USD \$ 3,753 b than that registered one year earlier.

As for portfolio investment, the result is explained by inflows of foreign capitals aimed at the acquisition of securities issued by the public sector in both Colombia and international markets for por USD \$ 8,825 b and USD \$ 6,688 b respectively. It is worth highlighting that in the case of the local public debt, the influx of foreign capitals was mainly associated with the effect of the rebalancing of the JP Morgan Emerging Markets Bond Index. On its side, the private sector showed net USD \$ 3.797 b outflows for the acquisition of financial assets abroad.

For 2015, the external balance projection is embodied in an advanced economy recovery, but with lower international commodity prices. Besides, for emerging economies, price shocks would mean a growth slowdown. In this scenario, the strong fall of the oil price and its implications in the dynamics of other commodity prices will have significant impact on the foreign sales of traditional products and the country's external accounts. On the contrary, the best prospects, particularly for the United States economy, mean better demand conditions for Colombia's non-traditional exports which would be additionally favored by the U.S. currency appreciation process.

For 2015, in this context an important reduction of total exports is estimated as the outcome of a diminished value in the external sales of traditional goods, associated with the lower export prices projected for this year despite growths expected in the production of these goods. This fact would be in part offset with the recovery of the non-traditional exports thanks to the impetus of external demand from the advanced countries and relative competitiveness increases due to the foreign exchange effect. On the other hand, the value of imports is projected to fall in a significant manner because of the impact of investment cuts, particularly in the mining-energy sector, on capital goods imports, the lower prices in U.S. dollars of imports of consumer and intermediate goods, and the expected slowdown in internal demand. Despite the foregoing, the result of the trade balance for 2015 might be even more negative than that observed in the previous year.

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44 Net foreign direct investment and net portfolio investment pertain to foreigners' investments in Colombian, discounting Colombians' investments abroad.

*For 2015, an important reduction in the total exports value is expected, as well as a significant fall in imports. Nevertheless, the result of the commercial balance might be more negative than in 2014.*

It has been estimated that net expenditures for factor income will be higher than those recorded in 2014, given a reduction in the remittance of profits expected for the mining-energy sector, consisting in the drop of their income and a reduction as well in profits remitted by the remaining sectors as an effect of the reduced growth prospects in the economic economy. Moreover, net transfer income might be recovered as propelled in particular by the improved conditions experienced in the United States and Spain, since they are an important source of workers' remittances. Consequently, the balance of payments projection for 2015 exhibits a current account deficit slightly more reduced than that observed in the previous year, with a projected range that will mainly depend on the external financing conditions to be faced by the country.

The external deficit is expected to continue being financed by FDI resources likely to be lower than those of 2014 within a context of investment reductions in the mining-energy sector and fewer growth prospects for investment in the other sectors. Additionally, it has been estimated that the influx of net income from portfolio investment would be significantly moderate for 2015, once the effect of the rebalancing of the JP Morgan emerging markets bond index is stabilized. The above would be offset, in part, with increased flows expected from other capital income, particularly those from loans to the non-financial public sector.

## **2. Evolution of the foreign exchange rate during 2014 and so far in 2015**

*The external deficit is expected to continue to be financed with FDI funds that would be lower than those of 2014. Likewise, it has been estimated that the influx of net portfolio investment income would moderate in a significant manner for 2015.*

As mentioned in Chapter 1, the external context during 2014 was characterized by the recovery of the United State economy and an economic slowdown in other countries as evidenced, particularly, in the Eurozone and Chine. This resulted in a U.S. dollar reinvigoration vis-à-vis most other currencies of bot developed and emerging countries. Likewise, other factors such as the liquidity measures implemented by several central banks, as well as problems of geopolitical nature (the Russia and Ukraine conflict and the military tensions in the Middle East, for instance) motivated agents to find shelter in investments in the United States. This trend became more pronounced during the second half of the year.

Thus, in comparing the foreign exchange rates at the closing of 2014 against those of 2013, a 13.6%-yen depreciation was noticed along with 13.5% of the euro and 6.0% of the sterling pound against the United States dollar. Anyhow, all Latin American currencies depreciated (31.2% the Argentinian peso, 24.2% the Colombian peso, 15.3% the Chilean peso, 12.7% the Mexican peso, 12.6% the Brazilian real, and 6.9% the Peruvian sol) (Graph 35).

Graph 35  
Nominal Exchange Rate Indices of Some Latin American Countries<sup>a/</sup>



a/ Information to February 27, 2015  
Source: Bloomberg

Graph 36  
Credit Default Swaps for some Latin American countries<sup>a/</sup>



a/ Information to February 27, 2015  
Source: Bloomberg.

A comparison between the 2014 foreign exchange rate average against that of 2013 shows that there was less depreciation vis-à-vis the U.S. dollar for most currencies in the region (48% the Argentinian peso, 15.3% the Chilean peso, 9.1% the Brazilian real, 7.2% the Colombian peso, 5.1% the Peruvian sol, and 4.3% the Mexican peso) since during the first half of the year. These appreciations were related to the evolution of currencies in other emerging economies (as, for example, several Asian countries). This fact was associated to an improved risk perception towards these economies reflecting on the reduction of their risk premiums (Graph 36). In the case of Colombia, higher valuations were seen with relation to the influx of portfolio capitals in the face of increment of the weight of its debt denominated in Colombian pesos in the JP Morgan Emerging Markets Bond Indexes - GBI<sup>45</sup>.

In contrast, during the second half of the year, the Latin American currencies depreciated in a significant manner vis-à-vis de U.S. dollar, and their risk premiums increased. This, among other reasons, was due to a decline in the international prices of raw materials and expectations around the likelihood of the early occurrence of an increase in interest rates in the United States. During the second half of the year, the Colombian peso depreciation was larger than that experienced by the currencies of the country's peers in the region. Although basic goods that are important for the regional economy like silver, gold and copper showed price falls, none

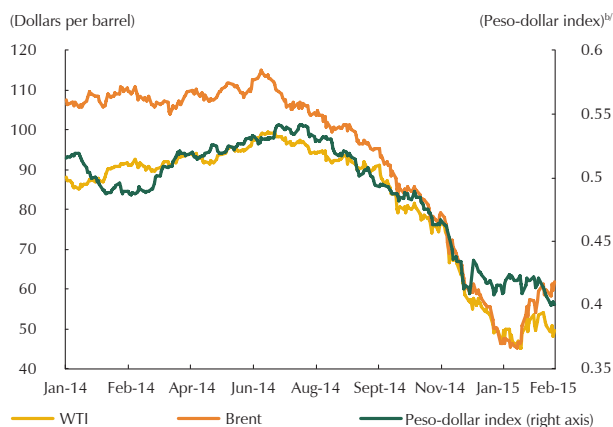
of them was close to the sharp devaluations of oil affecting Colombia in a significant way among other Latin American countries with exchange rate flotation (Graph 37).

Vis-à-vis the group of currencies of our main trade partners, the Colombian peso exhibited a behavior similar to that observed with respect to the U.S. dollar by appreciating in the first half of the year and being depreciated in the next six months. For the year average, the weakening of the Colombian peso in contrast with that group of countries was 5.5% as compared with 2013, this figure being smaller than the average variation of the so-called market representative rate ("tasa representativa del mercado – TRM") because, as already mentioned,

45 See "Analysis of the impact in Colombia of the Rebalancing of the JP Morgan Emerging Markets Bond Index", Box 2, Report to the Congress of July 2014.



Graph 37  
Nominal Exchange Rate and International Oil Prices <sup>a/</sup>

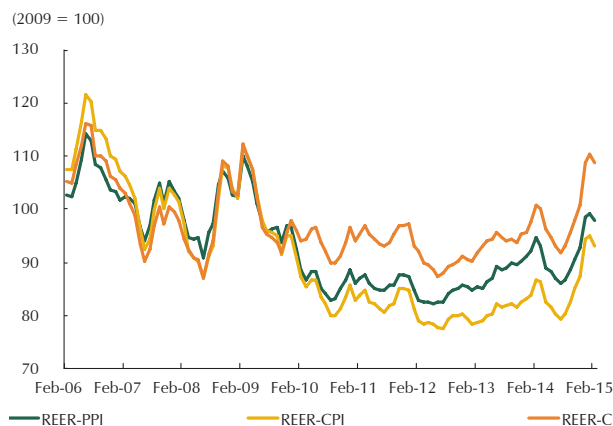


a/ Information to February 27, 2015

b/ Peso-dollar index = (1/nominal exchange rate) X 1,000.

Source: Bloomberg and Office of the Financial Superintendent of Colombia.

Graph 38  
Real Exchange Rate Indices



Source: Banco de la República.

most currencies had also depreciated against the United States dollar.

Variations in the nominal exchange rate do not necessarily reflect changes in foreign trade competitiveness. The evolution of internal and external prices may counter (or reinforce) the movements of the nominal exchange rate – NER (“ tasa de cambio nominal - TCN”). The real exchange rate RER (“tasa de cambio real- TCR”) is the indicator serving to adjust variations in the nominal exchange rate by the variations occurring in the internal and external prices<sup>46</sup>. On average, the different “TCR” indices showed in 2014 an annual depreciation between 3.0% and 4.1% vis-à-vis our main trade partners, depending on if producer prices - RERI-PPI (“ITCR-PPI”) or consumer prices - RERI-CPI (“ITCR-IPC”) are used, and 3.9% against our competitors in the United States in items like coffee, bananas, flowers, and textiles – RERI-C (“ITCR-C”).

Throughout the year, the performance of the RER was similar to the behavior of the NER. Thus, in the first half of the year, the Colombian peso strengthened in real terms, in this way reversing part of the real depreciation having been observed since 2012; in the second half of the year, it weakened considerably by returned to levels similar to those experienced in 2009 (Graph 38)

Besides the risk premium behavior and the deterioration in the terms of trade caused by the sharp drop in the oil prices, the evolution of other RER determinants also allow to explain the current weakening trend of the Colombian currency. Some of them are the increase in the net external liabilities of the country to the rest of the world, the stagnation in the tradable sectors’ labor productivity or the reduction in the real interest rate differential in Colombia, and the external one due to lesser inflation in the advanced economies.

In the 2015 period elapsed so far (to 27<sup>th</sup> February), the Colombian peso continued to depreciate as a consequence of uncertainty with respect to the

46  $TCR = TCN (P^*/P)$ , where “TCN” is the nominal exchange rate expressed as pesos per currency,  $P^*$  are the prices abroad, and  $P$  are the prices in Colombia. Usually, these variables are expressed as indices.

*So far 2015, the Colombian peso depreciation went on as a consequence of uncertainty around the behavior of the oil price and the time at which the reference interest rate is increased by the Federal Reserve.*

behavior of oil prices and the time at which the normalization of the monetary policy in the United States will commence. Despite the foregoing, it is worth pointing out that the Colombian peso depreciation rate during the month of January was lower due to the monetary stimulus measures announced by central banks such as China and the Eurozone giving way to continuity expectations in the broad international liquidity conditions.

### **3. Foreign Reserves indicators**

*Banco de la República's* foreign reserves accumulation strategy acknowledges the importance of keeping a proper level of international liquidity in the face of likely capital outflows, as well as for the purpose of improving confidence in the country<sup>47</sup>. To determine whether foreign reserves are sufficient or not to prevent and confront external shocks, several indicators describe below (Table 7) are used. Generally, international markets deem that low values in them may give alert signals about the external vulnerability of the economies.

In order to establish the economy's response ability in the face of capital outflows triggered by a speculative attack, the ratio of net reserves to M3 shows some improvement in 2013 and 2014 as compared to the downward trend of the indicator starting in 2009. In addition to the purchase of reserves by the Bank, the monetary aggregate growth rate has slowed down since middle 2013.

Net reserve ratios to total external debt amortizations and the current account deficit indicate the country's capacity to respond to its credit obligations to the rest of the world, in an extreme scenario where access to international financing is completely closed. For 2014, although for most indicators, they were reduced as compared with 2013, nevertheless they still show levels above the critical value of 1<sup>48</sup>.

On the other hand, the quotient between net reserves and total imports of goods and services shows the number of external purchase months that a given economy is capable of covering by making use of its foreign reserves in the

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47 Besides the reserve accumulation strategy, Colombia has since May 2009 a contingent financing line with the IMF that is granted to member countries with a good economic performance, prudent policies, and a sound economic policy framework. Last 24 June 2013, the IMF reaffirmed access to contingent resources for Colombia in an approximate amount of USD \$5.980 b. Although economic authorities do not plan to make use of these resources, they anyhow deem that counting on them is a prudent decision before the likely possibility of and abrupt cut in external funding. Countries like Poland and Mexico also have this credit line.

48 According to the IMF's "Debt and Reserve Related Indicators of External Vulnerability" (2000), there is empiric evidence for a sample of emerging economies allowing for establishing as a reference the value of 1 for this type of reserve indicators. Specifically speaking, the Guidotti-Greenspan rule suggests that a country's reserves should be equal to the short-term external debt balance, which accounts for a ratio of 1 for this indicator. The explanation lies in the fact that countries should have sufficient reserves to withstand a massive withdrawal of short-term external capital.



Table 7  
Foreign Reserves Indicators for Colombia

	2010	2011	2012	2013 (pr)	2014 (pr)
Balance					
Net foreign reserves (million dollars) <sup>a/</sup>	28,452	32,300	37,467	43,633	47,323
Indicators					
A. External debt amortization indicator					
External debt amortization (million dollars)	10,459	14,174	22,371	16,600	20,319
Net reserves / current year external debt amortization	2.72	2.28	1.67	2.63	2.33
Net reserves / next year external debt amortization <sup>b/</sup>	2.01	1.44	2.26	2.15	2.15
B. Adequate external liquidity position					
NIR/ (current year debt servicing)	2.12	1.86	1.45	2.16	1.96
NIR/ (next year debt servicing) <sup>c/</sup>	1.64	1.25	1.86	1.81	1.75
NIR/ (current year debt amortization + current year, current account deficit)	1.49	1.35	1.11	1.51	1.18
NIR/ (next year debt amortization + next year, current account deficit) <sup>d/</sup>	1.19	0.96	1.29	1.09	1.27
C. Other international reserve indicators					
NIR as months of imports of goods	8.9	7.4	7.9	9.2	9.2
NIR as months of total imports	7.1	6.2	6.5	7.5	7.6
NIR/M3 (percentage)	25.7	24.1	22.1	24.7	30.3
NIR/GDP	9.9	9.6	10.1	11.5	12.5

(pr): preliminary (calculations based on preliminary data of balance of payment estimates)

a/ Balance of net foreign reserves include contributions made to the Latin American Reserve Fund (FLAR)

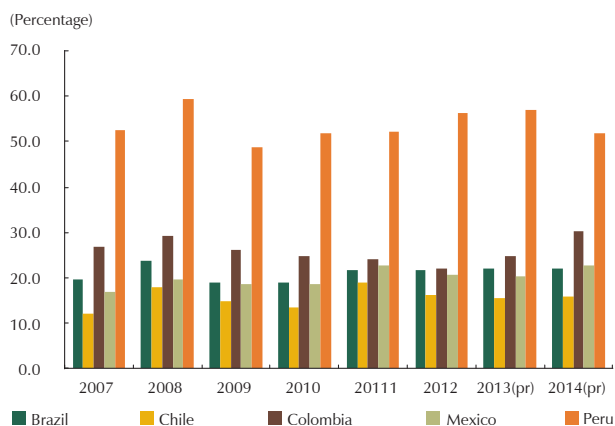
b/ 2015 amortizations pertain to projected external debt payments of the existing external debt (contractual payment obligations)

c/ 2015 interests relate to projected payments at the closing of the balance of payment projections.

d/ The current account deficit for 2015 is projected.

Source: Estimates by Banco de la República.

Graph 39  
Foreign Reserves/M3



(pr): preliminary.

Source: Central banks, The Economist Intelligence Unit (updated June 2015) and Banco de la República.

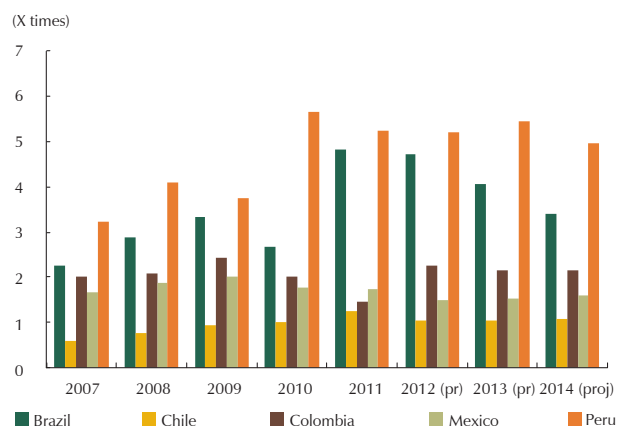
face of an abrupt change in the trade balance. This indicator is estimated at 7.6 months for 2014, higher than the average since year 2000. A calculation of this indicator for imports of goods shows that it amounts to 9.2 months.

When comparing the diverse Colombian international liquidity indicators with those of the countries in the region, it can be seen that the ratio to M3 records levels above those of Brazil, Chile and Mexico and below Peru's <sup>49</sup> (Graph 39). In the ratios between foreign reserves and amortizations, debt service and current account deficit, Colombia historically exhibits levels above Chile and below Brazil and Peru (Graph 40). On the other hand, the

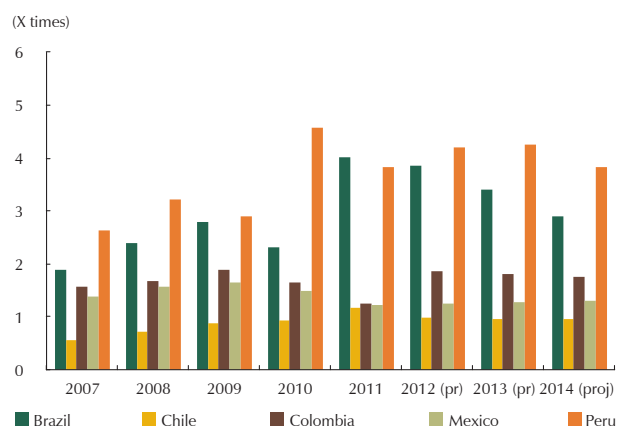
49 Peru's growth and ratio level is highlighted, due to the fact that local banks are able to capture deposits in US dollars and its legal reserve is accounted for as reserves.

Graph 40

A. Foreign Reserves/Next Year Amortizations



B. Foreign Reserves/Next Year Debt Service



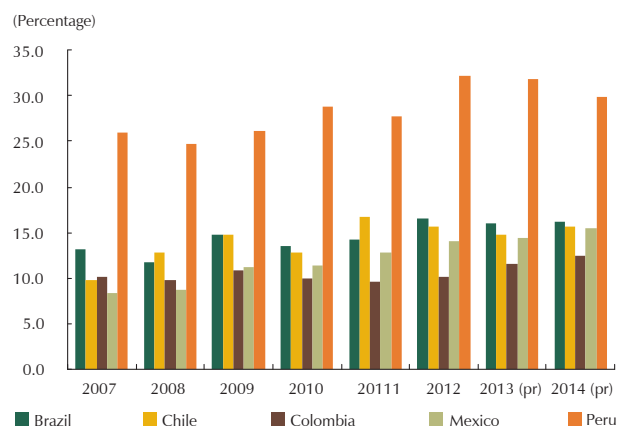
C. Foreign Reserves/Next Year Current Account Deficit + Amortizations



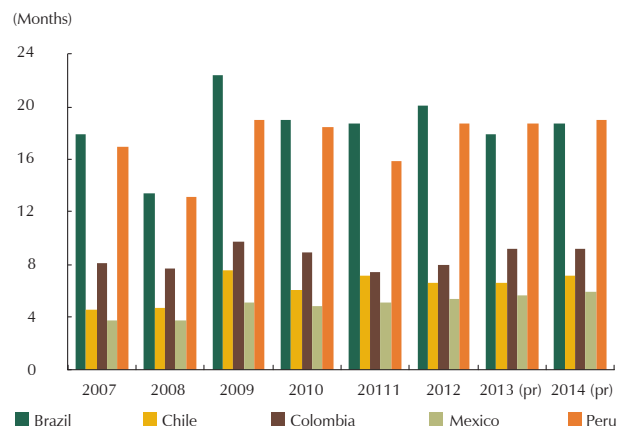
(pr): preliminary.  
(proj): projected.  
Source: Central banks, The Economist Intelligence Unit (updated June 2014) and Banco de la República.

Graph 41

A. Foreign Reserves/GDP



B. Foreign Reserves in months of imports of goods.



(pr): preliminary.  
Source: Central banks, The Economist Intelligence Unit (updated June 2015) and Banco de la República.

reserve indicator ratio to GDP stands at lower levels than those observed in the rest of the countries in the region. As for reserves measured in months of imports of goods, they show that, according to her position, Colombia' stands above Chile and Mexico and below Brazil and Peru (Graph 41).

## BOX 1

### THE FALL OF OIL PRICES AND THEIR CHANNELS OF INFLUENCE IN THE COLOMBIAN ECONOMY

During the second half of 2014, there was a sharp decline of international oil prices took place. The fall was of 60% between June 2014 and mid-January 2015—from USD115 per barrel (bl) to USD45.8 bl for the Brent reference—. Agents did not anticipate the magnitude of this shock, which resulted from many factors, among them, an increase of the oil supply and, to a lesser extent, a reduction of demand perspectives (Garavito et al., 2015).

The Colombian oil activity, having been driven by the high crude prices observed in previous years, along with a domestic production boom, has strengthened its ties with the national economy. Indeed, its impact on the external sector is high by means of the terms of trade, the balance of payments, the exchange market and rate, and on the public sector as well by means of fiscal revenues related to taxes, royalties and Ecopetrol's dividends. In addition, being a capital-intensive activity, it contributes to investment and the labor market. Given the importance of the oil sector to economic activity, the negative oil shock would impact the national economy.

This Box describes the importance to and channels of influence of oil activity on the Colombian economy and presents a comparison with other countries in the region also depending on the production of commodities. Likewise, given the current situation, the possible effects of declining oil prices upon the economy are analyzed.

#### 1. Links with the external sector

From year 2000 onwards, both in its current and its capital account, the Colombian oil sector has displayed a surplus external balance. In particular, during the 2011-2013 period, the branch showed, on average, a positive current account balance of 5.0% of GDP that partially compensated for the 8.0% of GDP average deficit for the remaining sector. This allowed for maintaining the current account deficit of the economy as a whole at around 3.1% of GDP.

With regard to the country's total external sales, the percentage share of exports of oil and petroleum products shifted from 26% of total between 2001 and 2007 to 53% between 2011 and 2014. This took place thanks to rising international oil prices and higher volumes shipped abroad. The price increase was reflected in a continued improvement of the country's terms of trade, that, expect

during the financial crisis, maintained an upward trend at least up to the first months of 2012 (Graph B1.1).

**Graph B1.1**  
Colombia's Terms of Trade and Mining Commodities Export Prices



a/ Terms of trade based on foreign trade methodology

b/ Includes crude oil and its derivatives, coal, gold and ferro-nickel.

Sources: DIAN and DANE.

However, beginning in the second half of 2014 this dynamic reversed, and oil export prices started to show a downward trend<sup>1</sup>. The influence of the oil sector in the financial account has been equally significant. Total FDI flows have been the country's main source of external financing, amounting to an average 55% of foreign capital inflows in the 2011-2014 period, and about 33% went to the oil sector (equivalent to 1.4% of GDP). As a result of the net foreign capital income and surplus in current operations, this sector represents the main source of currency supply in the country's exchange market.

The raw material bonanza, the higher production levels and favorable external financing conditions have been a key element in the external dynamics of not just Colombia but of Latin America as well. Indeed, the importance of raw materials in relation to total exports has also increased

1 This decline is partially offset by the lower prices of oil chain-related goods imported by the country.

for other countries of the region in the last decade. In Chile, Brazil, Colombia, Peru and Mexico, economies together comprising about 72% of the regional trade, said percentage, which by 2000 fluctuated between 10% and 40%, increased to a range between 13% and 51% in 2014 (Graph B1.2)<sup>2</sup>. However, this is below the registered in 2008, when the percentage share of foreign sales of commodities in total exports reached its maximum level (between 15% and 56%).

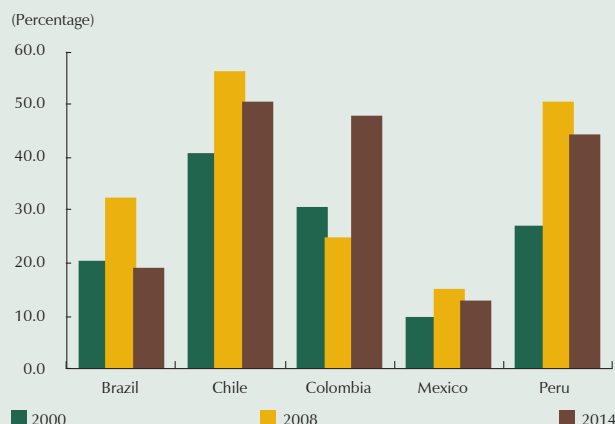
The terms of trade of the other countries of the region did not escape this dynamic. Just as they have benefitted from the increase of export prices of raw materials, they have been affected by the decline thereof. Comparing the levels of the terms of trade in 2014 to the historically high levels of 2011, a decline in all the region's economies is observed— the more important ones taking place in Colombia (-18.9%), Brazil (-14.3%) and Chile (-13.5%)—. The country less affected by the declining export prices was México (-7.8%). This latter case is worth highlighting as the only diversification process of the export structure moving toward manufacturing, where foreign sales of oil only account for 10% of exports.

Exports of Colombia and Mexico are of crude oil, Chile's and Peru's of copper and its byproducts. In Peru's exports, those of gas, lead, iron, and zinc are also included. Brazil's export basket has 31 products, among which metallic minerals, oil and cereals stand out.

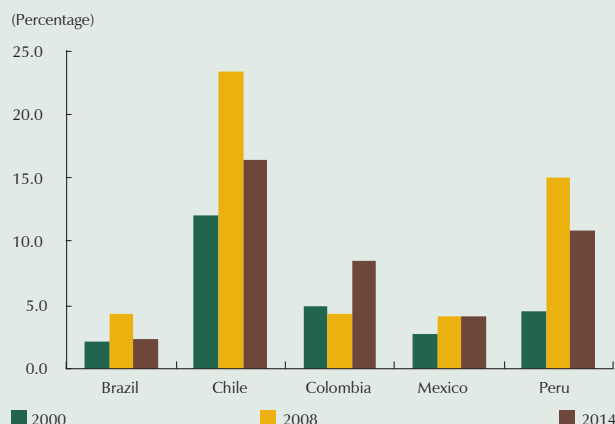
As in Colombia, in the main countries of the region the raw material exploitation and natural resource-intensive manufacturing have been a determining factor of capital inflows. During 2014, these sectors absorbed between 5.0% (the case of Chile)<sup>3</sup> and 35% (Brazil) of total resources from FDI (Table B1.1). In the case of Mexico this dynamic is just beginning, since its oil sector was closed to foreign investment up until 2013.

Graph B1.2  
Exports of Raw Materials

#### A. Percentage of Total Exports



#### B. Percentage of GDP



Sources: IMF, Cepal, each country's institute for statistics and central bank.

## 2. Links with the real and fiscal sectors

In Colombia, as a result of the increase in value of oil production and higher levels of investment, the share of the oil sector in the total real GDP shifted from 3.9% in 2005 to 5.2% throughout 2014 up to September. Additionally, thanks to its dynamism, this activity has been one of the country's main sources of economic growth. The oil sector's importance has also been represented in higher investment levels in mining and oil activities, which overall amount to about 15.7% of gross fixed real capital formation (2012 figures), 8.4% higher than as registered in 2005. It is worth noting that the sector's productive structure is characterized as being mainly capital and technology-intensive, not as labor-intensive, and having low backward linkages to the rest of the economy.

2 Exports of Colombia and Mexico are of crude oil, Chile's and Peru's of copper and its byproducts. In Peru's exports, those of gas, lead, iron and zinc are also included. Brazil's export basket has 31 products, among which metallic minerals, oil and cereals stand out.

3 This data contrasts with what was observed in prior years, since the foreign companies of associated sectors reduced their expansion plans to new reserves, due to the price decline of raw materials.

Table B1.1  
FDI in Raw Material-Producing Sectors  
(percentage of total FDI)

Country	2000	2008	2014
Brazil	6.7	29.3	34.6
Chile	13.4	44.7	5.4
Colombia	20.5	31.7	32.5
Mexico	0.0	0.0	9.9
Peru	1.3	51.3	20.5

Sources: IMF, Cepal, each country's institute for statistics and central bank.

Along with the above, the oil sector has been a relevant source of fiscal income. In the Colombian public sector, the increase in oil resources was reflected in a higher amount of income tax collection, equity, of dividends paid by Ecopetrol to the nation, as well as of royalties. Revenue originating in oil activities, including the payment of royalties<sup>4</sup>, went from 1.0% of GDP in 2002 to about 3.4% in 2013 and to 2.6% in 2014<sup>5</sup>. As a percentage of the CNC's total income between 2011 and 2014, oil revenues represented 15.4% in average.

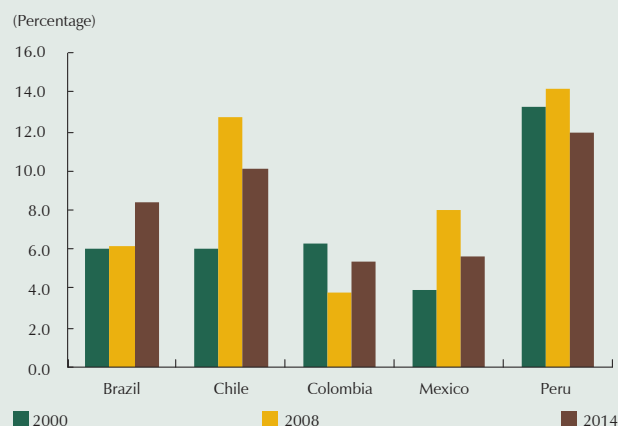
The importance of the raw material-producing sectors to the GDP in other commodity-exporting economies of the region is equally significant. In these countries the average share of these sectors in the GDP shifted from 7.0% in 2000 to 9.0% in 2014 (Graph B.1.3). According to the IMF, these sectors' dynamics contributed between 0.8 and 1.2 points of GDP growth in the entire decade. In the case of Chile and Peru, where the percentage share of raw materials in the GDP is above 10%, their contribution to growth between 2000 and 2010 was close to 2.1% (IMF, 2011). As for gross fixed-capital formation, results for Colombia are slightly lower than Chile's (16.7%) and Peru's (18.4%), but higher than Brazil's and México's<sup>6</sup> (5.8% and 8.6%, respectively). In countries like Peru, Chile and Colombia investment in the mining sectors are mainly concentrated in machinery and construction of structures.

4 Of all resources received by the public sector from the payment of royalties, the oil sector contributes with about 80% or the total.

5 Including the CREE Tax [Income Tax for Equity] in 2013 and 2014.

6 National investment pertains to the sectorial gross fixed-capital formation deriving from each country's input-output matrix. Data from 2014 relates to estimates up to the third quarter.

Graph B1.3  
Share of Raw Material-Producing Sectors in GDP



Sources: IMF, Cepal, each country's institute for statistics and central bank.

### 3. Potential implications for the Colombian economy

Given the magnitude of the decline of oil prices, in a scenario where this shock is a continuing one, permanent effects upon the terms of trade and the national income would be observed and this, in turn, would have the respective negative impact on economic growth (Mendoza, 1997; Andrews et al., 2009). This kind of shocks may have different transmission channels and will affect an economy depending on its economic policy framework (Fornero et al., 2014).

As already mentioned, Colombia's oil revenues have special importance for the external and public sectors. With regard to the former, a reduction in the terms of trade and external exports and foreign direct investment revenues is expected. This decrease will be partially offset by lower expenditures in factor income and imports. This lower external net income will have an impact on exchange rate levels, since the oil sector is an important currency supplier in the exchange market. According to the main scenario forecast for 2015 in the most recent Inflation Report (December of 2014), the country's total exports would decline by 21% and direct investment in the oil sector would fall about 25%. In addition, the current deficit is expected to stand at a range between -3.3% and -5.5% and to be determined especially by the availability of external financing.

On their part, fiscal revenues will decline due to both the reduction in the collection of taxes and royalties associated to the extraction of hydrocarbons, and lower dividends received from the state oil company. In fact, according to the most recent revision of the Ministry of Finance and Public Credit's 2015 financial plan, a central

national government's (CNG) deficit of 2.8% of GDP is expected, thus higher than the 2.4% foreseen in the most recent Medium-Term Fiscal Framework document. To the foregoing, the impact in gross capital formation associated to the reduction in investment projects by the sector's main agents on gross capital formation is to be added; Finally, the evolution of external financing costs along with risk perception and agent confidence as a response to the situation of lower oil prices and the monetary policy of the advanced economies are yet to be seen.

In sum, the shock of lower oil prices has been reflected in the GDP growth prospects for 2015. Indeed, up to December 2014, the specialized analysts were expecting in 2015 a 4.6% variation in the real GDP; this figure was brought down to 4.0% in January 2015 and to 3.6% later, in February (Latin Focus Consensus Forecast). International organizations like the IMF and the country's economic authorities (*Banco de la República* and Ministry of Finance) did also revise their projections downwards.

Some characteristics of the Colombian economy allowing it to cushion this kind of negative shocks are worth mentioning. The inflation goal-floating exchange scheme stands out, which, under adequate conditions, allows for a partial absorption of external shocks upon product (Broda, 2002; Edwards et al., 2003). In the current situation this exchange rate regime favors the economy, since inflation expectations are anchored to the long-term goal, the pass-through has been low in recent years<sup>7</sup>, exchange mismatches are moderate and there is less exposition of Government debt to change in the exchange rate, thanks to the recomposition to local currency-denominated debt.

Other factors can be added to the above, as the increase in foreign reserves, access to the IMF's flexible credit line, the institutional strengthening of public finances by the inclusion in the Constitution of the principle of fiscal sustainability, and the implementation of the fiscal rule as well as of regulations favoring financial stability, according to criteria of the international regulatory framework.

As for the price expectations for the Brent reference in 2015, analysts and the futures market expect a partial price recovery, with respect to the minimum observed at the beginning of this year (USD 45.8 bl), standing at below the average registered between 2011 and the first semester of 2014 (USD110 bl). The above would result mainly from lowered expectations of production of unconventional crude oils, given their higher production

costs and the reduction of investments by the main companies of the sector. To this, a slight recovery of the global demand and some geopolitical risks still latent are added. The main downward risks on prices would be related to a further slowdown of global economic growth and possible technological innovations allowing for the extraction of unconventional hydrocarbons with lower production costs (Garavito et al., 2015).

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7 See Box 2 in this Report: "Exchange rate and inflation in Colombia", pp. 90-94.



## BOX 2

### NOMINAL EXCHANGE RATE AND INFLATION IN COLOMBIA

#### 1. Introduction

For any country's monetary authorities, there are at least two motivating reasons in studying the transmission of the nominal exchange rate to prices: in the first place, getting to know its power as a short-term macroeconomic adjustment mechanism. In this sense, if the prices of tradable goods respond in a significant manner to exchange rate variations, depreciation should reflect on a raise of prices for imported goods in local currency and a price reduction for those exported in foreign currency. So, the exchange rate might play a role in the stabilization of the current account by inducing demand to shift from foreign goods to those produced in the country. In the second place, it makes part of the monetary policy decision-making analysis. If the transmission of the exchange rate to prices is quite strong, depreciation - along with the other constant things (*ceteris paribus*) might jeopardize the inflation target.

Likewise, the extent or degree to which the exchange rate is transmitted to prices is a matter of interest for a country's enterprises since its production costs are modified by either appreciations or depreciations of their currency by altering the prices in local currency of the goods they are importing (such as raw materials and capital). It is also a key element for households since their consumption can be affected by this variable's fluctuations since they alter the prices of the end goods and services they demand.

Recent theoretical and empirical literature has stressed the fact that the degree or extent of the exchange-rate transmission to prices is less than proportional since it lies in the market power held by the importing and producing companies in the local market, along with the rigidity of the economy's prices, the [*negative or positive?*] sign, the size, the volatility and the nature of the exchange rate

(temporary versus permanent) fluctuations, and the state of the economy (whether the output gap is positive or negative, [whether] the exchange rate [is] appreciated or depreciated, [whether] the economy [is] less or more open, or whether the inflation rate is high or low).

It is possible to conclude from the above that since the degree of transmission depends upon several factors, both the state of the economy and the performance of the macroeconomic variables add uncertainty and complication at the time of trying to estimate it.

Therefore, given the importance of this information for authorities, enterprises and households, this Box shows the estimations of the degree of short and medium-term transmission of the Colombian peso exchange-rate alterations on the annual variation of imported consumer goods, on producer prices, and on the total CPI. Quarterly data are used in the estimations for the 1985-2014 period, as well as econometric linear and non-linear models.

#### 2. Channels for the transmission of the nominal exchange-rate variations on prices

The fluctuations of the nominal Colombian peso exchange rate resulting, for example, from an increased risk aversion in the international markets or a fall in the price of primary goods (like oil) are transmitted to the CPI inflation rate, at least through three – two direct and one indirect – channels (Diagram R2.1). The first one (the cost channel) works through the direct effect of exchange rate fluctuations on the prices of imported inputs, and then to both producer and consumer prices.

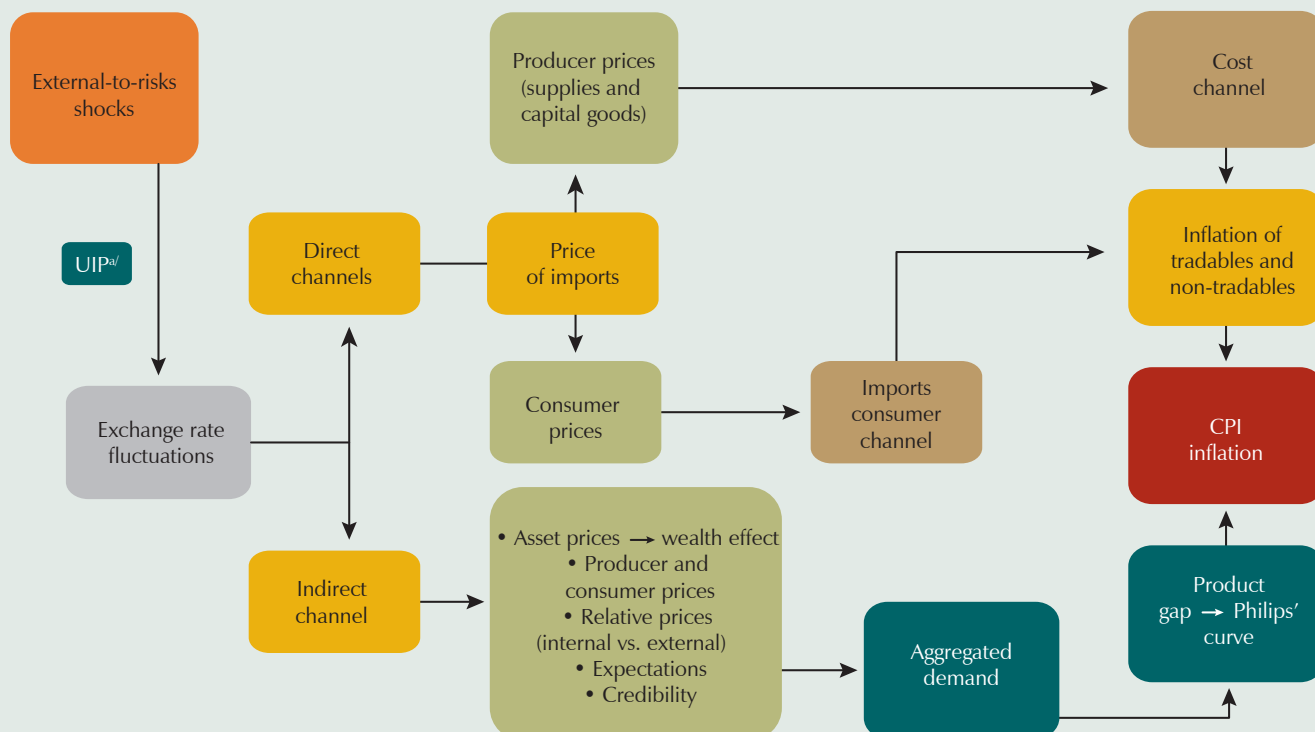
The second direct one (the channel for imported consumption) acts on the prices of imported consumer goods that exert pressure directly on total inflation. This channel is also present through a change in the demand for domestic goods replacing the imported ones competing against them, this having effects on the CPI variation.

As earlier mentioned, the degree of transmission of these channels will depend, among other things, on the market power that importing and producing companies may have in the local market, and also upon how fast and costly a modification of their prices can be, since the higher the price, the lower the frequency of price modifications introduced by them.

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1 This article summarizes the documents submitted by Gonzalez, A.; Rincon, H.; Rodríguez, N. (2010), "La transmisión de los choques a la tasa de cambio sobre la inflación de los bienes importados en presencia de asimetrías" (literally: "The transmission of shocks to the imported goods in the presence of asymmetries") en M. Jalil and L. Mahadeva (eds.), *Mecanismos de transmisión de la política monetaria en Colombia* (literally: Monetary policy transmission mechanisms), Externado de Colombia University and Banco de la República, and Rincon, H.; Rodríguez, N. (2014). "Reestimación del grado de transmisión de la tasa de cambio del peso sobre la inflación de los bienes importados", (literally: "Reassessment of the extent of the peso exchange-rate transmission on inflation of the imported goods") Borradores de Economía, No. 850, Banco de la República.

Diagram B2.1  
Channels of Transmission of Exchange Rate Variations to Inflation



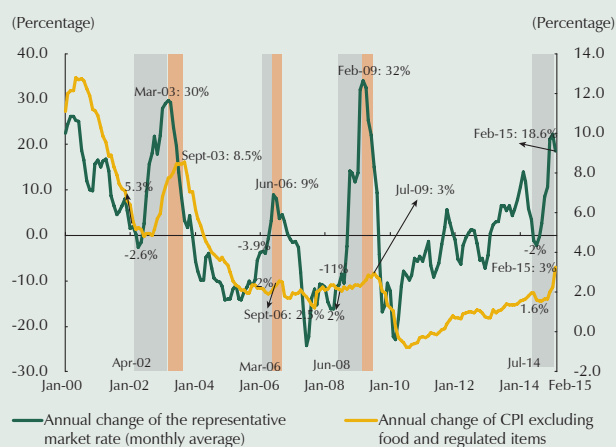
a/ Uncovered interest parity  
Source: The authors', based on Miller (2003) and their own deductions.

The indirect channel operates through multiple mechanisms and disturbances affecting aggregate demand and, with it, the ratio between inflation and employment (as usually expressed using the Phillips curve). Among some of these mechanisms, asset prices and relative internal versus external prices can be mentioned, as well as the confidence of enterprises and consumers and their expectations in the face of any such changes. It is evident that the behavior of these variables and their impact on the CPI inflation rate will be subject to the response of the monetary authority toward meeting its price stability objective.

### 3. A graphic exploration of the historical relationship between the nominal foreign exchange rate and the CPI's tradable goods prices.

In order to test historical evidence against the results of the estimations submitted and analyzed in the next section, Graph B2.1 is designed to compare the evolution in the variation of the market representative exchange rate ("TRM") variation and the prices of the CPI's tradable goods. As it can be seen, it is not easy to draw a conclusion about the degree of transmission of the nominal exchange rate on [?] these goods inflation based on a simple graphic representation of its historical behavior. It is worth highlighting some facts, as follows: the Colombian peso appreciated by 30% with respect to the U.S. dollar

Graph B2.1  
Average Representative Market Rate (month) vs. Tradable CPI



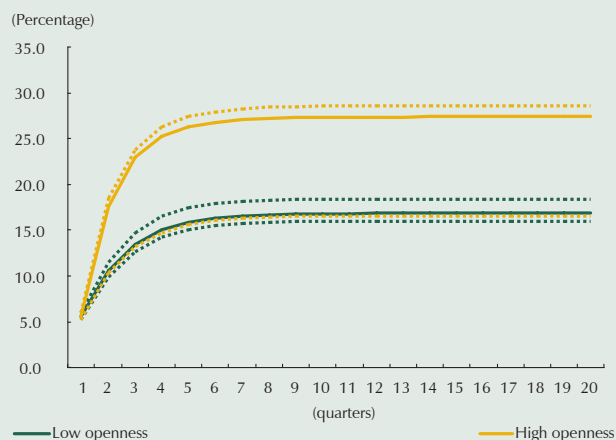
Source: Banco de la República.

between April 2002 and March 2003, while tradables up to September 2003 increased scarcely 8.5%. Conversely, the Colombian peso appreciated 24% between March 2003 and March 2006, and the CPI of tradables decreased by 10% within the same period. Between February 2014 and February 2015, the devaluation of the Colombian peso was 18.6% while the increase in the segment of tradables in the CPI was scarcely 3%. Thus, and as already mentioned, establishing the degree of transmission

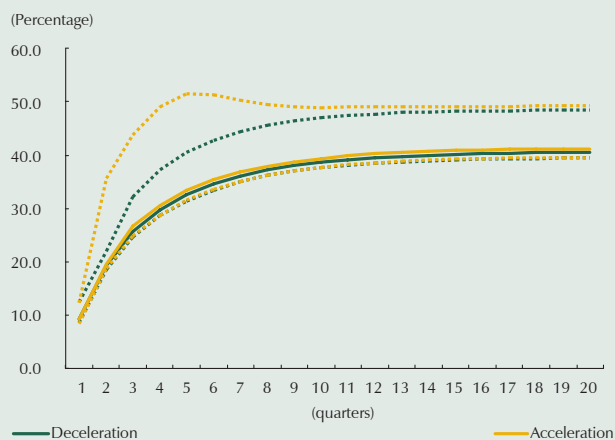


Graph B2.2

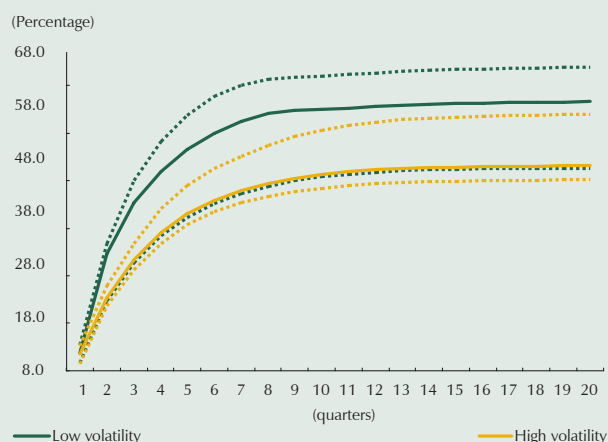
A. Degree of Economic Openness



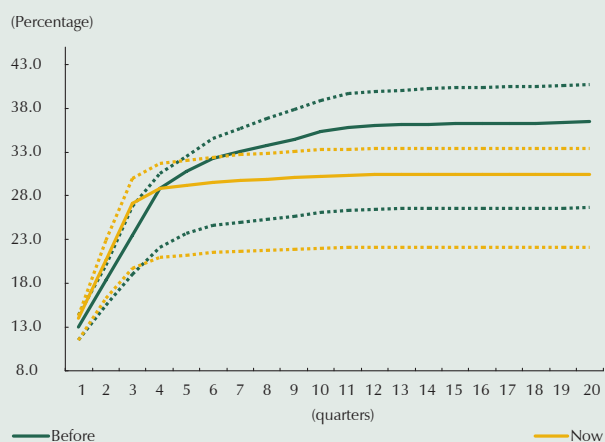
B. Devaluation of the peso (acceleration/deceleration)



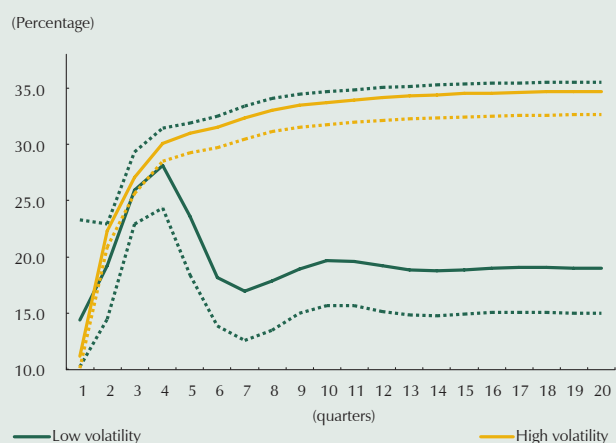
C. Devaluation of the peso (volatility)



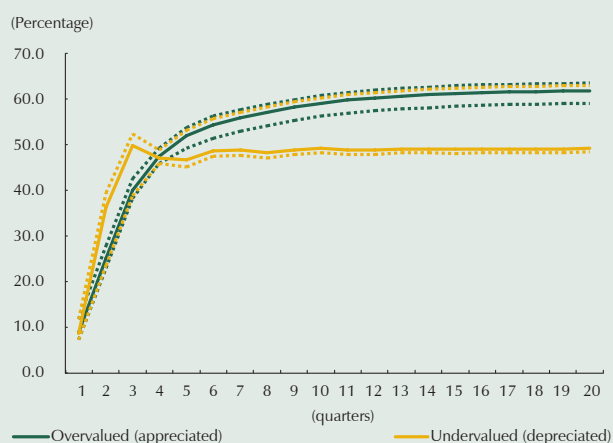
D. CPI inflation



E. CPI inflation (volatility)



F. Real exchange rate



Note: The dotted lines correspond to 80% confidence intervals.  
Source: Rincon and Rodríguez (2014)

requires very thorough analysis seldom free of uncertainty and exempt from margin errors.

#### 4. Degree of transmission of the exchange-rate variations on the PPI of imported goods.

Graph B2.2 shows the estimated paths of the degree of transmission of a 10% devaluation of the nominal exchange rate of the Colombian peso on the annual increase of the PPI imported goods (or cost inflation) for diverse timelines and according to different states of some of the main macroeconomic variables. Each value in the solid lines is the degree of estimated transmission and should be read as the accumulated effect of a cumulative 10% devaluation of the Colombian peso on the variation of the imported goods in the PPI until the relevant quarter. The dotted lines are the respective 80% confidence intervals.

The first conclusion that can be drawn is that the degree of transmission is not proportional, i.e., a one-to-one ratio, in both the short and the medium term. Thus, a positive variation of the exchange rate is transmitted to the imported goods of the PPI at a magnitude varying between 5.0% of the size of the devaluation in the first two quarters, and another one of 62% in the medium term, according to the state of the macroeconomic variables.

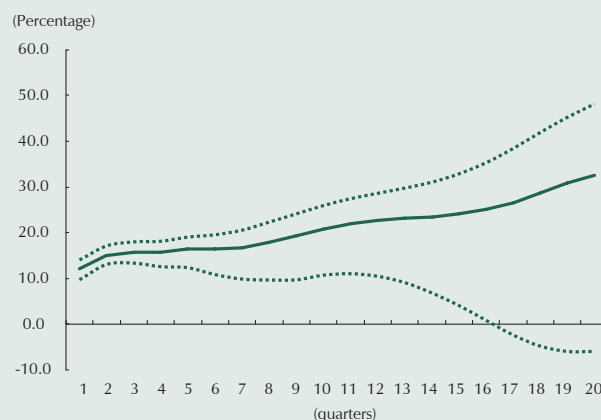
The second finding, as already highlighted, is that the degree of transmission jointly depends on the situation of the macroeconomic variables, the nature of the exchange variations, and the inflation condition. This, in a technical language, means that transmission is endogenous and asymmetrical; it depends upon the state of the economy and the type of disturbance it faces.

The third conclusion is that a Colombian peso devaluation in the short term is transmitted to a greater to the PPI of imported goods when the economy is more open, if devaluation accelerates and the volatility of exchange rate fluctuations is lower and the CPI volatility is higher, and when the real exchange rate is undervalued or depreciated. Generally, these results remain in the medium-term. It is worth highlighting that the higher inflation is, the higher the degree of transmission will be.

#### 5. Degree of transmission of the exchange rate variations on the total PPI, imported consumer goods, and the total CPI.

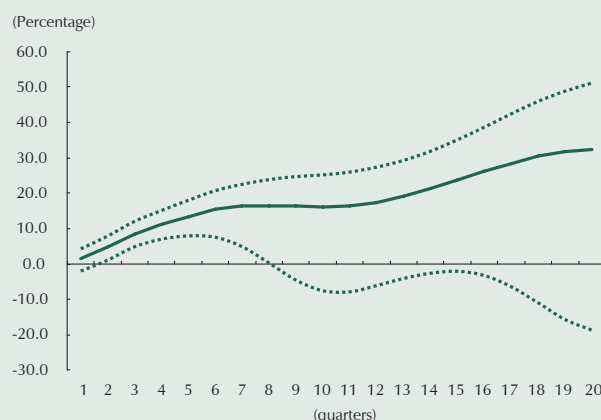
In this section, the results of the second direct channel- or *imported consumption channel for the transmission of exchange rate fluctuations* -, and also those of the indirect demand and supply channel are shown and analyzed for

Graph B2.3  
Transmission to change in the PPI



Source: Rincon and Rodriguez (2014).

Graph B2.4  
Transmission to imported-CPI inflation (9% of CPI)

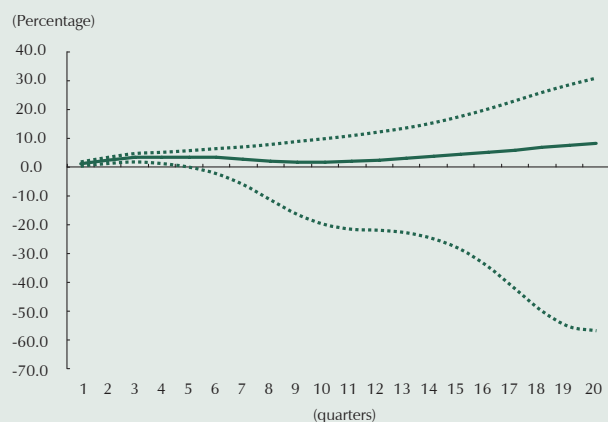


Source: Rincon and Rodriguez (2014).

a linear model, as explained in Diagram R2.1. Finally, the degree of transmission to the CPI inflation is estimated, this being the highest aggregate prices in the economy, which has a direct impact on consumers. It is easy to guess that the difficulty of this exercise is higher, as well as the greater uncertainty it brings about, since diverse variables – other than the exchange rate - affecting this degree of transfer come into play here. It is necessary to point out that the reaction of the monetary policy against disturbances to the exchange rate or other variables is not explicitly included in the estimations.

Graphs B2.3 and B2.4 exhibit the accumulated paths of the degree of transmission of a 1.0% Colombian peso devaluation on the total PPI and the most important CPI basket of imported goods. After a year, this transfer reaches 16% and 11% of the value of that variation on

Graph B2.5  
Transmission to CPI inflation



Source: Rincón and Rodríguez (2014).

the inflation rates of the PPI and the IPC imported goods, respectively. In other words, inflation rates increase up to 14 and 11 base points within a year of the occurrence of a 1% devaluation. Transmissions attain maximum values of 25% and 17% in the medium term, prior to becoming statistically non-significant.

Lastly, Graph B2.5 shows the degree of transmission estimated on CPI variation, which amounts to 4.0%. In other words: if the devaluation of the Colombian peso is 1.0%, the CPI inflation increase will be base points, within a year from its occurrence. From the fifth quarter onward, the degree of transmission becomes statistically non-significant.

## 6. Conclusions

The degree of transmission of exchange-rate fluctuations on inflation is a matter of great importance to monetary authorities, enterprises and consumers, and even more where such variations are large. From the results submitted herein, it can be concluded that transmission is less than proportional in both the short and the medium term, and that it lies on the performance of the economy and the nature of the exchange rate disturbances, as well as upon inflation dynamics.

The estimations show that vis-à-vis a Colombian peso devaluation of 1%, the CPI inflation increases by 4 base points within a year from its occurrence.

Finally, and as it has been pointed out throughout this article, determining the degree of transmission of the exchange rate on inflation is a task confronting great uncertainty and complexity and, therefore, it leaves no room for hasty conclusions.

### III. FOREIGN RESERVES

*As of December 2014, net foreign reserves totaled USD \$47,323.09 b, which means that they were higher by USD \$3,690.35 b than the balance recorded a year earlier. The profitability of reserves in US dollars was negative (USD \$261.3 b) due to the low external interest rates and the depreciation of major developed countries' currencies with respect to the United States dollar.*

*As of December 2014, net foreign reserves totaled USD \$47,323.09 b, this amount being higher by USD \$3,690.35 b than the balance reported in December 2013.*

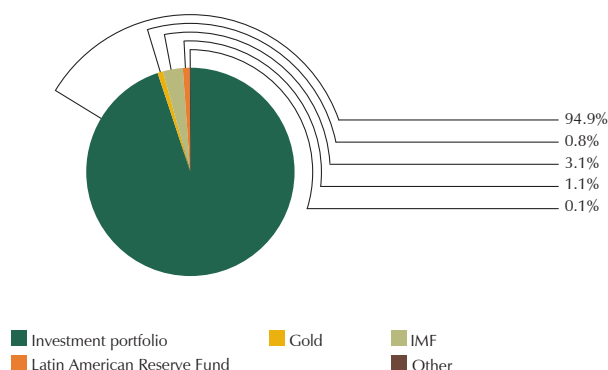
Consistent with Act (“Ley”) 31 of 1992, *Banco de la República* administers foreign reserves in the public interest, for the benefit of the national economy, and for the purpose of facilitating the country’s payments abroad. According to this, the law determines that the investment of reserve assets shall be subject to the safety, liquidity, and profitability criteria.

As of December 2014, net foreign reserves totaled USD \$47,323.09 b, an amount being higher by USD \$3,690.35 b than the balance posted in December 2013<sup>50</sup>. The main component of foreign reserves is the investment portfolio; it pertains to investments in financial instruments in the international market. Graph 42 shows the foreign reserves composition.

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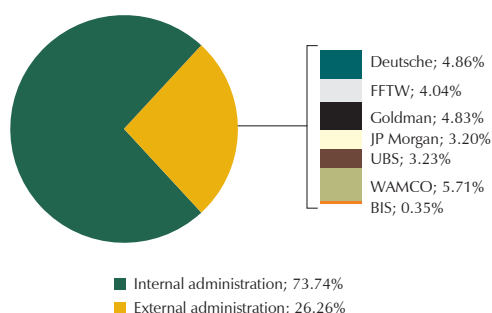
50 Net foreign reserves are equal to the total foreign reserves or gross reserves minus *Banco de la República*’s short-term external liabilities. The latter have been constituted by demand obligations in foreign currency toward non-resident agents. Gross foreign reserves amounted to USD \$47,328 b, and the short-term external liabilities totaled USD \$5.0 b (these values have been rounded up).

Graph 42  
Composition of Gross Foreign Reserves  
(Information to 31 December 2014)



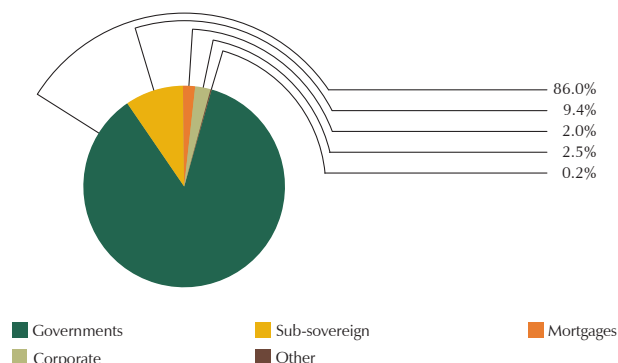
Source: Banco de la República.

Graph 43  
Composition of the Investment Portfolio and Administrators  
(Information to 31 December 2014)



Source: Banco de la República.

Graph 44  
Composition of the Investment Portfolio by Sectors  
(information up to 31 December 2014)



Source: Banco de la República.

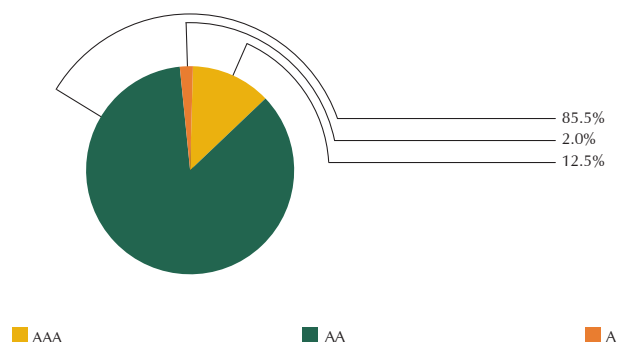
## A. INVESTMENT PORTFOLIO COMPOSITION

The Annex contains an explanation of policies serving to guide investment portfolio investments, and some relevant definitions. Graph 43 shows how this portfolio is administered, and it can be observed that most part of it is managed on an internal basis. External administrators are used as well in order for them to generate returns in addition to those from the reference index<sup>51</sup>, based in their good knowledge and long-lasting experience in markets, and accordingly train *Banco de la República* officers.

Graph 44 exhibits the composition of the investment portfolio as of December 2014, when nearly 95% had been already inverted in papers issued by governments or quasi-governments and repurchase agreements with the Federal Reserve.

Graph 45 lets us see the investment portfolio's credit quality. The Bank uses as a reference the lowest rating granted by at least two of the three mayor rating agencies (S&P, Moody's, and Fitch Ratings). The high share of AA-rated securities is explained by the portfolio's significant concentration in debt issued by the United States government, the credit rating of which stands at AA+, according to S&P.

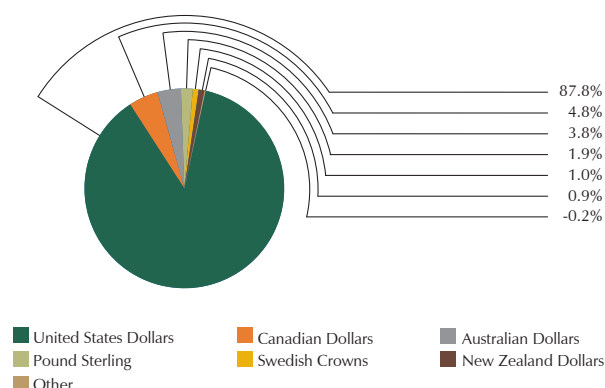
Graph 45  
Distribution of Investments by Credit Rating  
(Information up to 31 December 2014)



Source: Banco de la República.

51 See the Annex for its definition.

Graph 46  
Currency Composition of the Investment Portfolio  
(Information up to 31 December 2014)



Note: The aggregate does not add up to 100%, because the field "Other" corresponds to short positions amounting to -0.18%  
Source: Banco de la República.

This figures evidence the high quality of assets invested in the invested portfolio.

Finally, Graph 46 shows the foreign exchange composition maintained in the investment portfolio as of December 31, 2014, slightly differing from the objective of the investment tranche<sup>52</sup>, since the working capital, which is invested solely in United States dollars is included. In addition, and within strict limits, slight deviations are permitted in the active portfolio as well as investments in other developed countries' currencies such as the euro, the yen, the Norwegian krone and the Swiss franc.

As a preventive measure against a raise in the advanced economies' interest rates, the effective duration of the investment tranche was low (0.68) in December 2014<sup>53</sup>.

## B. THE PROFITABILITY OF RESERVES

*During 2014, the profitability of reserves was affected by the international situation, particularly the low interest rates in the countries where investments are made, and depreciation of the currencies of major developed countries vis-à-vis the United States dollar.*

The basic financial theory of portfolio administration indicates that if an investor chooses to face a minor risk, the expected profitability in this case will be lower. In this sense, a decision aimed at having a portfolio with a conservative risk profile will mean obtaining low profitability.

Between December 2013 and December 2014, reserve profitability in U.S. dollar was negative by 0.57%<sup>54</sup> (USD \$261.3 m), due to two factors:

- Interest rates in major developed countries remained at historically low levels. For instance, the average interest rate of bonds issued by the government of the United States with a maturity of less than one year was 0.15% in December 2014. This has resulted in low returns obtained from investment, but, nonetheless, better than those received in the previous year thanks to the good performance of bonds prices in the United States, Australia, New Zealand, and Sweden. Excluding the effect of the U.S. dollar appreciation vis-à-vis the other currencies, the yield from reserves was positive by 0.54% (USD \$244.8 m) in the year.

52 US dollars, 87%; Canadian dollars, 5%; Australian dollars, 4%; sterling pounds, 2%; Swedish krone, 1%; and New Zealand dollars, 1%.

53 Effective duration is defined as the percentage decrease (increase) in the portfolio value vis-à-vis a 1.0% increase (decrease) in all the interest rates, taking into account the potential impact of the change occurring in the expected cash flows, as a consequence of changes in interest rates

54 This rate is obtained by dividing profitability observed in US dollars by the average value of net reserves on 31 December 2013 and 31 December 2014.

- In 2014, the main developed countries' currencies depreciated with respect to the U.S. dollar due to the relative best performance of the United States' economy having led to nurture expectations of a reference interest rate in the course of 2015. Since investments are valued in United States dollars, the exchange rate movement had a negative impact on profitability, equal to -1,11% (USD \$-506.1 m).



## IV. BANCO DE LA REPÚBLICA'S FINANCIAL POSITION

*The Central Bank's profit and loss is determined, to a large extent, by the monetary income and expenditure, which are associated with its functions as central bank, and which depend largely on variables that are not under its control such as external interest rates, fluctuations in the market prices of the securities in the reserve portfolio, the portfolio of TES and gold, and the behavior of the currencies in which foreign reserves are invested.*

### A. INCOME STATEMENT EVOLUTION

*In 2014, Banco de la República posted a negative operational result of COP \$1,166.2 t from income amounting to COP \$457.8 t and expenditures for COP \$1,624.0 t. The operational loss registered this year was lower by COP \$542.1 t than that of 2013.*

In 2014, *Banco de la República* exhibited a negative operational result of COP \$1,166.2 t, being this the outcome of revenues amounting to COP \$457.8 t and expenditures for COP \$1,624.0 t (Table 8). This meant a COP \$549.7 t increase in total income and COP \$7.6 t in expenditure against what had been observed in the previous year. In this sense, the operational loss registered in 2014 was lower by COP \$542.1 t than that of a year earlier.

The explanation of higher income experienced in 2014 lies in the best behavior of the foreign reserves, along with exchange adjustments on assets in foreign currency other than foreign reserves, and income for the face value of coins brought into circulation. On the other hand, higher expenditure is mainly explained by the Bank's intervention rate increase and larger deposit volumes having affected both the monetary control deposits and the deposits of the General Public Credit and National Treasury authority ("Dirección General de Crédito Público y Tesoro Nacional – DGCPTN"), and the higher costs involved in the issuing and distribution of monetary species of legal courses as a result of the increased issuing of coins.

Table 8  
*Banco de la República's* Income Statement (2014)  
Under Generally-Accepted Accounting Principles  
(billion pesos)

	Executed to:		Annual Variations	
	2013	2014	Percentual	Absolute
<b>I. P/L Income</b>	<b>(91.8)</b>	<b>457.8</b>	<b>-</b>	<b>549.7</b>
<b>A. Monetary income</b>	<b>(239.1)</b>	<b>276.4</b>	<b>-</b>	<b>515.5</b>
1. Interests and returns	(500.1)	(378.6)	(24.3)	121.4
Foreign reserves	(659.6)	(560.1)	(15.1)	99.5
Returns	(143.2)	485.8	-	629.0
Exchange-rate differential	(516.5)	(1,045.9)	-	(529.5)
Liquidity operations	130.9	137.0	4.7	6.1
TES valuation	28.5	44.3	55.5	15.8
Other interests	0.2	0.1	(58.7)	(0.1)
2. Exchange differences	104.6	465.8	-	361.1
3. Coins	152.4	187.3	22.9	34.8
4. Other	3.9	2.0	(48.3)	(1.9)
<b>B. Corporate income</b>	<b>147.3</b>	<b>181.4</b>	<b>23.2</b>	<b>34.1</b>
1. Fees	115.7	137.5	18.8	21.7
Banking services	52.6	65.3	24.0	12.7
Fiduciary operations	63.1	72.2	14.4	9.1
2. Other	31.6	44.0	39.3	12.4
<b>II. P/L expenditures</b>	<b>1,616.5</b>	<b>1,624.0</b>	<b>0.5</b>	<b>7.6</b>
<b>A. Monetary expenditures</b>	<b>990.5</b>	<b>1,143.2</b>	<b>15.4</b>	<b>152.7</b>
1. Interests and returns	811.2	934.1	15.1	122.9
Remuneration on Finance Ministry accounts	406.5	423.7	4.2	17.2
Monetary-control interest-bearing deposits	343.8	443.4	29.0	99.6
IMF flexible commitment	23.1	27.3	18.4	4.2
International-reserve management expenses	19.4	25.8	33.3	6.4
Monetary contraction operating expenses	18.5	13.8	(25.3)	(4.7)
2. Exchange differences	40.0	42.8	7.0	2.8
3. Costs of issuing and distributing bills and coins	139.2	166.2	19.4	27.0
4. Other	0.2	0.2	(2.7)	(0.0)
<b>B. Corporate expenditures</b>	<b>398.1</b>	<b>416.3</b>	<b>4.6</b>	<b>18.2</b>
1. Personnel costs	258.8	277.5	7.2	18.7
2. Overhead	57.8	60.5	4.7	2.7
3. Recovery of deductible VAT (CR)	(2.7)	(3.8)	41.3	(1.1)
4. Taxes	8.0	9.8	23.4	1.9
5. Insurance	6.0	5.9	(1.1)	(0.1)
6. Contributions and membership dues	6.0	1.8	(70.0)	(4.2)
7. Cultural expenditures	9.4	9.5	1.5	0.1
8. Depreciation, provisions, debt repayments & other expenditures (including deferred software costs)	54.9	54.9	0.1	0.1
<b>C. Pensioners' expenses</b>	<b>227.8</b>	<b>64.5</b>	<b>(71.7)</b>	<b>(163.3)</b>
<b>III. Operating result (I - II)</b>	<b>(1,708.3)</b>	<b>(1,166.2)</b>	<b>-</b>	<b>542.1</b>

Source: *Banco de la República*.

*Although it remains negative, the total yield of foreign reserves exhibited some recovery versus 2013. Although investment portfolio returns were higher, they did not offset the negative effect of the depreciation of the currencies which compose the investment portfolio vis-à-vis the US dollar.*

The revenues behavior was associated with the performance of the total foreign reserves which, although still negative, is nevertheless experiencing a recovery in comparison with 2013. The investment portfolio yields were larger by reason of the increase in the prices of long-term bonds in the developed countries<sup>55</sup> that were countered by the devaluation with respect to the U.S. dollar of currencies constituting the investment portfolio (the exchange differential), this having negatively affected the net yield of foreign reserves. On the other hand, the exchange differences registered in 2014 that were generated on assets and liabilities in foreign currency (other than foreign reserves) did also contribute to income recovery.

Thus, foreign reserves showed a net negative yield of COP \$560.1 t in 2014 vis-à-vis COP \$659.6 t observed a year earlier. The average profitability of the investment portfolio was -0.56% in 2014 against -0.58% in 2013<sup>56</sup>. This result is mainly explained by:

- i) Devaluation against the U.S. dollar of currencies composing the investment portfolio<sup>57</sup> having generated exchange differential losses for COP \$1,045.9 t as compared to those amounting to COP \$516.5 t observed in the previous year (Graph 47).
- ii) COP \$485.8 t portfolio yields resulting from the valorization of long-term bonds (COP \$480.0 t) and of the contributions of international agencies, gold investments<sup>58</sup> and other returns (COP \$5.8 t). The good yield of investments carried out particularly in the United States, Australia, New Zealand and Sweden is highlighted (Graph 48).

Other income associated with the 2014 outcomes were:

- The net result of income and expenditure originating in the Colombian peso exchange-rate variation with respect to the U.S. dollar on assets

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55 Although profitability of the foreign reserves due to interest generation experienced some recovery as compared to 2013, it continues to be moderate by reason of the low historical levels maintained in the external interest rates.

56 Without including the exchange differential, the average investment portfolio profitability was 0.51% in 2014 against 0.21% in 2013.

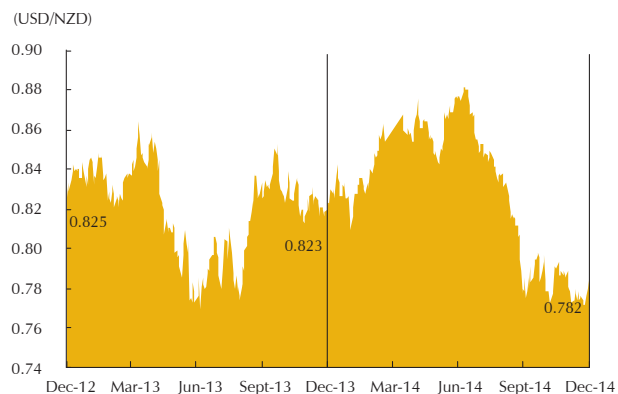
56 Without including the exchange differential, the average investment portfolio profitability was 0.51% in 2014 against 0.21% in 2013.

57 In 2014, depreciations with respect to the United States dollars were experienced by the Swedish krona (18.0%), the Australian dollar (8.5%), the Canadian dollar (8.3%), the UK sterling pound (5.9%), and the New Zealand dollar (5.0%).

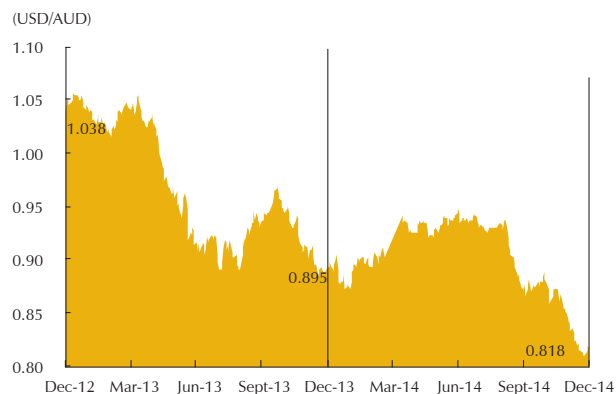
58 Investments in gold generated income for COP \$2.3 t. The Bank keeps a low proportion of gold (1%) in its reserves, which are valued at market prices on a daily basis. The international price of gold was USD \$1,199.3 per troy ounce at the closing of 2014, and USD \$1,201.5 per troy ounce at the end of December 2013.

Graph 47  
Performance of reserve currencies against the dollar.

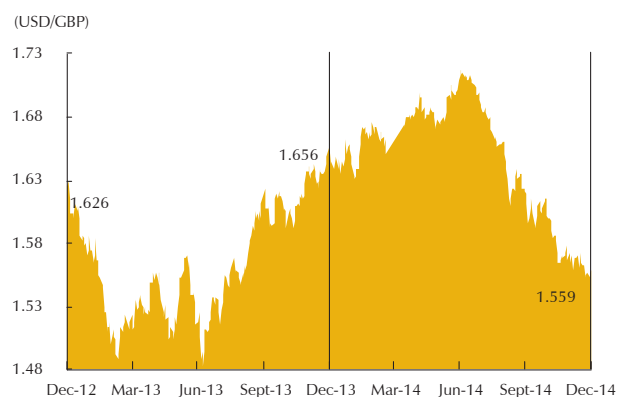
A. New Zealand Dollar



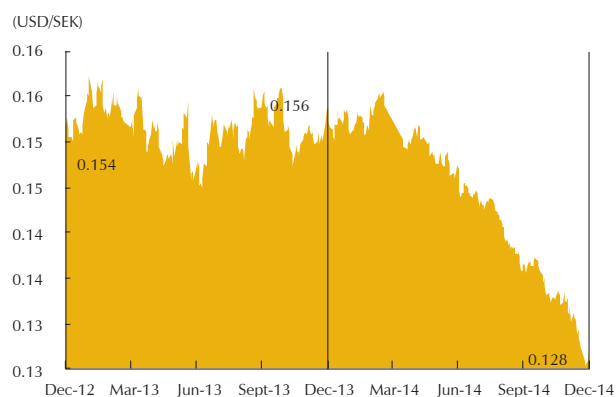
B. Australian Dollar



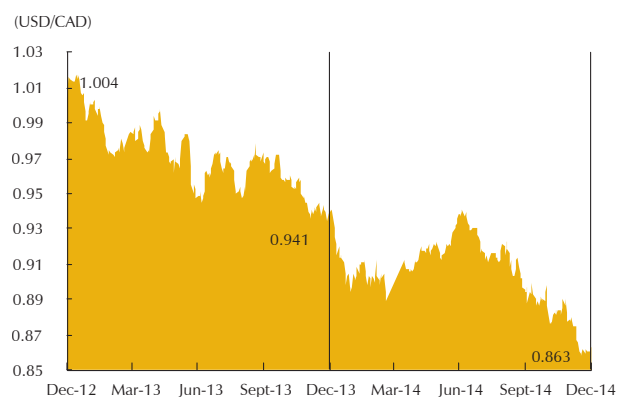
C. Pound Sterling



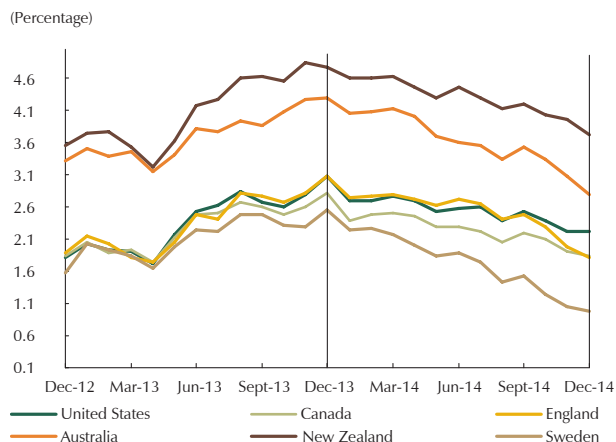
D. Swedish Crown



E. Canadian Dollar



Graph 48  
10-year Bond Interest Rates



Source: The World Markets Company PLC (WM)

Source: Bloomberg.

and liabilities in foreign currency other than foreign reserves was positive by COP \$423.0 t, as the outcome of the Colombian peso 24.2% depreciation against the dollar of the United States.

- The bringing of coins into circulation generated income for COP \$187.3 t, higher by COP \$34.8 t in comparison with 2013 as explained by a larger demand and the increase of pieces entering into circulation.
- Income from liquidity operations through repos amounted to COP \$137.0 t, higher by COP \$6.1 t (4.7%) against 2013, being this the result of a higher average annual remuneration rate<sup>59</sup>.
- Income received from bank service commissions and trust business amounted COP \$137.5 t, above by COP \$21.7 t (18.8%) those obtained in 2013, this growth being associated particularly with commissions on the reimbursement of exports and the payment of imports under the Aladi Agreement<sup>60</sup>, as well as for the administration of TES bonds and the Savings and Stabilization Fund (“Fondo de Ahorro y Estabilización – FAE”).

With relation to expenditures, the following is highlighted:

- The remuneration to monetary control deposits amounted to COP \$443.4 t<sup>61</sup> vis-à-vis the COP \$343.8 t seen in 2013. This is the main explanation of the increase experienced by the Bank’s monetary expenditures during 2014.
- The remuneration to the DGCPTN deposits was COP \$423.7 t, higher by COP \$17.2 t (4.2%) against that reported one year earlier as a result of a higher interest rate<sup>62</sup>.
- Costs for the issuing and distribution of monetary species totaled COP \$166.2 t, in this way reporting a 19.4% increase according to the enhanced issuing of coins in order to meet demand.
- Corporate expenditures stood at COP \$416.3 t, which accounts for an annual growth of 4.6% (0.9% in real terms), distributed as follows:
  - Personnel expenses showed a real increase of 3.5% resulting from the salary in accordance with the collective labor agreement in force and the increase in staff for the development of IT projects in support

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59 The remuneration interest rate was an effective annual rate of 4.02% (“e.a.”) in 2014 and of 3.45% (“e.a.”) in 2013.

60 Aladi: Latin American Integration Association.

61 The average balance of these deposits in 2014 was COP \$9,389.2 t and COP \$7,682.4 t in 2013. It is worth noticing that these deposits were constituted by the DGCPTN in the Bank since November 15, 2012, with resources from the placement of TES bonds aimed at regulating the economy.

62 The daily average of these deposits was COP \$11,122.7 t in 2014 and COP \$11,698.2 t in 2013.

*Monetary control deposits remuneration is the first explanation for the increased expenditures of Banco de la República in 2014.*

*El resultado operacional en la vigencia de 2014 fue negativo en COP 1.166,2 mm. The operational result in the 2014 period was negative by COP \$1,166.2 t. Losses attributed to the exchange differential (COP \$1,055.1 t) were covered with the reserve for currency fluctuations; after subtracting the net reserve for investment in cultural activities (COP \$12.7 b), the remainder (COP \$123.9 b) was covered by the Central National Government ("GNC").*

of the rendering of services, the strengthening of processes, and the risk prevention<sup>63</sup>.

- Overheads totaled COP \$60.5 t and reported a real increase of 1.0%, as the outcome of contracts being adjusted according to the increase in the minimum wage and expenses associated with maintenance and repairs of technical infrastructure (air conditioning systems and elevators) and technology and communication equipment.

- Cultural expenses amounted to COP \$9.5 t and registered a real 2.0% reduction.

- Taxes, insurances, contributions, affiliations, depreciations, provisions, amortizations, discountable VAT and other operational and non-operational expenses totaled COP \$68.7 t and showed a reduction of 8.1% in real terms.

- Finally, the net retirement pension expenditure was COP \$64.5 t, the outcome of pensioner expenses for COP \$155.8 t and income from the yields of the portfolio constituted with pension liabilities for COP \$91.2 t, according to the behavior of TES bond negotiation rates.

## B. RESERVE CONSTITUTION AND PROFIT DISTRIBUTION

The Bank's By-laws establish that the Board of Directors shall pass the income statement pertaining to the fiscal year and create or increase a monetary and exchange stabilization reserve with the period's profits, according to the forecast losses shown by the Bank budgets for the next two fiscal years. The remainder of profits once the deduction has been made of the reserve designed to meet net investment in goods for the cultural activity, and once the statutory reserves have been appropriated<sup>64</sup>, shall belong to the Nation. The period losses shall be covered by the national general budget ("presupuesto general de la nacion – PGN") provided, however, that they cannot be compensated with the monetary and exchange stabilization reserve<sup>65</sup>.

Likewise, the By-laws point out that profit generated by the effect of variation between the U.S. dollar and the other reserve currencies on assets and liabilities denominated in foreign currency (exchange differential), provided that profit has resulted during the fiscal year, it makes part of the reserve for currency fluctuation. If the exchange differential result is negative, it may be cancelled against said reserve<sup>66</sup>. Moreover, the effect of Colombian peso variation with

63 IT projects associated with modernization, risk prevention, and the strengthening of processes at the Office for Payments and Banking Operation, Treasury and Administrative Management.

64 Statutory reserves: i) of monetary and exchange stabilization; ii) for currency fluctuation; iii) for asset protection, and iv) of exchange results (Decree 2520 of 1993, articles 60 and 61).

65 Decree 2520 de 1993, articles 34, 60, 62, and 63.

66 Decree 2520 de 1993, article 61, paragraph 4.

respect to the U.S. dollar on the foreign reserves balance is posted directly in equity (the exchange adjustment account) and, therefore, it does not affect the income statement<sup>67</sup>.

The operational result in the effective 2014 term was negative by COP \$1,166.2 t. Losses attributed to the exchange differential (COP \$1,055.1 t) were covered with the currency fluctuation reserve, and the remainder, once the reserve for net investment in cultural activity (COP \$12.7 t) was deducted, it was covered by the National Government (COP \$123.9 t) (Table 9).

Table 9  
Constitution of Reserves and Distribution of Profits  
(billion pesos)

	2013	2014
<b>A. Result of the fiscal year (loss)</b>	<b>(1,708.3)</b>	<b>(1,166.2)</b>
<b>B. Plus utilization of reserves</b>	<b>516.6</b>	<b>1,055.1</b>
Currency fluctuation reserve	516.6	1,055.1
Monetary and exchange stabilization reserve	0.0	0.0
Exchange result reserve	0.0	0.0
Asset protection reserve	0.0	0.0
<b>C. Minus constitution of reserves</b>	<b>6.1</b>	<b>12.7</b>
Currency fluctuation reserve	0.0	0.0
Exchange result reserve	0.0	0.0
Asset protection reserve	0.0	0.0
Monetary and exchange stabilization reserve	0.0	0.0
Net Investment in goods for cultural activities	6.1	12.7
<b>Favorable net result (+) or borne by the National Government (-): A + B - C</b>	<b>(1,197.8)</b>	<b>(123.9)</b>

Source: Banco de la República.

### C. BALANCE SHEET OF BANCO DE LA REPÚBLICA ACCORDING TO ECONOMIC CRITERION

The variation of major items in *Banco de la República*'s balance sheet assets, liabilities and equity as of 31 December 2014 as compared with the balances exhibited on 31<sup>st</sup> December of the previous year (Table 10).

67 Decree 2520 of 1993, article 62, paragraph 4.



Table 10  
Balance Sheet - *Banco de la República* Classified by Economic Criteria  
(Results at December 2013 and December 2014)  
(billion pesos)

Accounts	December 2013		December 2014		Change	
	Balance	Percentage Share	Balance	Percentage Share	Absolute	Percentage
<b>Assets</b>	<b>94,738</b>	<b>100.0</b>	<b>127,195</b>	<b>100.0</b>	<b>32,456</b>	<b>34.3</b>
Gross foreign reserves	84,086	88.8	113,230	89.0	29,145	34.7
Contributions in international organizations	2,607	2.8	2,997	2.4	390	15.0
Investments	130	0.1	3	0.0	(127)	(97.9)
Public sector, monetary control	130	0.1	3	0.0	(127)	(97.9)
Loan portfolio	0	0.0	0	0.0	(0)	(100.0)
Other loans	1	0.0	1	0.0	(0)	(30.7)
Provision	(1)	(0.0)	(1)	(0.0)	0	(20.3)
Repo agreements and transitory liquidity support	4,086	4.3	6,885	5.4	2,799	68.5
Accounts receivable	55	0.1	42	0.0	-13	(23.2)
Other net assets	3,776	4.0	4,038	3.2	262	6.9
<b>Liabilities and equity</b>	<b>94,738</b>	<b>100.0</b>	<b>127,195</b>	<b>100.0</b>	<b>32,456</b>	<b>34.3</b>
<b>Liabilities</b>	<b>84,262</b>	<b>88.9</b>	<b>95,264</b>	<b>74.9</b>	<b>11,002</b>	<b>13.1</b>
Foreign currency liabilities affecting foreign reserves	13	0.0	12	0.0	(1)	(5.9)
Monetary base	65,093	68.7	69,671	54.8	4,578	7.0
Cash	39,556	41.8	45,194	35.5	5,638	14.3
Reserves	25,537	27.0	24,477	19.2	(1,060)	(4.2)
Non-reserve interest-bearing deposits	186	0.2	71	0.1	(115)	(61.9)
Deposit requirement on borrowing abroad and foreign- capital portfolio investment	0	0.0	0	0.0	0	0.0
Other deposits	197	0.2	75	0.1	(121)	(61.7)
National government (National Treasury Office) n/c	4,382	4.6	7,606	6.0	3,224	73.6
National government (National Treasury Office) n/c	140	0.1	150	0.1	10	7.1
Monetary-control interest-bearing deposits	9,984	10.5	13,093	10.3	3,108	31.1
Obligations to international entities	3,708	3.9	4,225	3.3	517	13.9
Others	0	0.0	0	0.0	0	0.0
Accounts payable	179	0.2	216	0.2	37	20.5
Other liabilities	380	0.4	146	0.1	(234)	(61.7)
<b>Total equity</b>	<b>10,476</b>	<b>11.1</b>	<b>31,930</b>	<b>25.1</b>	<b>21,455</b>	<b>204.8</b>
Capital	13	0.0	13	0.0	0	0.0
Statutory reserves	2,276	2.4	1,760	1.4	(517)	(22.7)
Surplus	9,895	10.4	31,324	24.6	21,429	216.6
Special foreign-exchange account settlement	453	0.5	453	0.4	0	0.0
Foreign exchange adjustment	7,928	8.4	29,223	23.0	21,295	268.6
Surpluses	318	0.3	325	0.3	7	2.3
Appraisals	1,196	1.3	1,323	1.0	126	10.6
Results	(1,708)	(1.8)	(1,166)	(0.9)	542	(31.7)
Profit / loss for previous periods	0	0.0	0	0.0	0	0.0
Profit / loss for the period	(1,708)	(1.8)	(1,166)	(0.9)	542	(31.7)

Source: *Banco de la República*.

## 1. Assets

*Banco de la República* assets recorded a balance of COP \$127,195 t<sup>68</sup> as of the closing of December 2014. This figure is higher by COP \$32,456 t (34.3%) than the balance seen in December 2013 when they amounted to COP \$94,738 t. The most notorious variations in asset accounts are explained by the following:

- *Foreign reserves*: As of the closing of December 2014, gross foreign reserves valued at market prices totaled COP \$113,230 t<sup>69</sup> (USD \$47,328 b), above by COP \$29,145 t (34.7%) with respect to the record observed on 31<sup>st</sup> December 2013. This variation is mainly due to: i) the foreign exchange rate adjustment resulting from Colombian peso depreciation against the U.S. dollar, this having increased by COP \$21,295 t the Colombian peso balance of gross foreign reserves; ii) currency purchases by *Banco de la República* (USD \$4,058 b) having raised by COP \$7,914 t, the balance of foreign reserves and iii) yield amounting to COP \$818 b from interest accrued during 2014. This was offset in part by: i) market price valuation and foreign exchange differential resulting in a COP \$1,378 t<sup>70</sup> decrease in the reserve balance, among others.
- *Investment portfolio in national currency*: Its balance was COP \$3 t as valued at market prices in December 2014, lower by COP \$127 t with respect to the closing of year 2013. This was the result of the transfer of TES bonds worth COP \$1.200 b by the Government to *Banco de la República* in order to cover the Bank's losses registered in 2013 and the valuation at market prices of its COP \$42 t. This was offset by sales and TES portfolio maturities amounting to COP \$1.236 t and COP \$133 t respectively.
- Thus, the final result was a reduction in the balance of these bonds held by *Banco de la República*.
- *Repo operations used to grant temporary liquidity* exhibited a balance of COP \$6, 885 t at the end of December 2014, which meant an increase of COP \$2,799 t with respect to the closing of 2013.

*Banco de la República's assets reported a balance COP \$127,195 t at the closing of December 2014. This figure was higher than the balance observed in December 2013 by COP \$32,456 t (34.3%), when assets amounted to COP \$94,738 t.*

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68 In this balance, the value of liabilities associated with operations with foreign reserves has been discounted.

69 Ibid.

70 The foreign exchange rate differential reference to the accounting effect created by either the depreciation or appreciation of the US dollar vis-à-vis the currencies composing the foreign reserve portfolio

As of 31 December 2014, the balance of liabilities was COP \$95,264 t, this amount being higher by COP \$11,02 t (13.1%) than that registered at the end of year 2013.

## 2. Liabilities

As of December 31 2014, the balance of liabilities was COP \$95,264 t, higher by COP \$11,002 t (13.1%) than that recorded at the end of year 2013. The main variation sources are described below:

- *Monetary base*: On 31<sup>st</sup> December 2014, the monetary base balance amounted to COP \$69,671 t, higher by COP \$4,578 t (7.0%) than the balance recorded at the end of 2013.
- *Remunerated deposits of monetary control* constituted since 2012 attained a balance of COP \$13,093 t at the closing of December 2014, above by COP \$3,108 t (31.1%) those pertaining to the closing of the previous year. This increase is mainly explained by placements of monetary control TES bonds for COP \$10,000 t between July and November 2014, which was offset by maturities amounting to COP \$7,302 t.
- *National Government deposits* constituted in Colombian pesos through the DGCPTN with *Banco de la República* showed a balance of COP \$7,606 t at the closing of December 2014. This amount is higher by COP \$3,224 t (73.6%) to that reported in December 2013.

## 3. Equity

There are two major elements in Banco de la República's budget: the monetary and the corporate components. The first ones comprise the results of its own functions as a central bank. Corporate components include the results of the Bank's administrative management, such as income from fees and commissions, personnel expenses, operating expenses, and net pension expenses.

The equity amounted to COP \$31,930 t in December 2014, with an increase of COP \$21,455 t (204.8%) as compared to the figure seen in December 2013. This is mainly explained by: i) the variation in the exchange rate adjustment account that went up by COP \$21,295 t (269%) as a result of Colombian peso depreciation with respect to the U.S. dollar, and ii) the COP \$1,166 t loss for the period, lower by COP \$542 t than that reported in 2013, which was in part offset with the statutory reserve of COP \$517 t for currency fluctuations in order to cover the losses due to the exchange rate differential in 2013 (Table 9).

## D. INCOME AND EXPENDITURE BUDGET FOR YEAR 2015

The profit and loss statement budget for 2015 as approved by the BDBR, upon the favorable opinion of the Superior Council for Fiscal Policy ("*Consejo Superior de Política Fiscal – Confis*"), was prepared through the application of the accounting policies adopted by *Banco de la República* according to the "*NIIF*", the International Financial Reporting Standards (IFRS) that modifies the traditional presentation of its financial statements (see Box 3, pp. 115-117). The comparisons were made against the 2014 budget approved by the BDBR and adjusted to the IFRS according to the international practices.

*Monetary results depend upon those variables not falling under the Bank's control, such as foreign interest rates, market price fluctuations (for example, reserve portfolio securities, TES bonds and gold), and the reserve currency performance.*

There are two major elements in *Banco de la República's* budget: the monetary and the corporate components. The first ones comprise the results of its functions as a monetary, exchange and credit authority, as the administrator of the foreign reserves, as banker, as lender of last resort for credit establishments, and as an issuing bank. Monetary results depend upon those variables beyond the Bank's control such as foreign interest rates, market price fluctuations (as, for instance, reserve portfolio securities, TES bonds, and gold), and the reserve currency performance. Corporate components include the results of the Bank's administrative management, such as income from fees and commissions, personnel expenses, operating expenses, and net pensioners' expenses.

For 2015, a negative operational result of COP \$531.3 b has been budgeted, this being the outcome of revenues for COP \$1,342.0 t and expenditures for COP \$1,873.3 t (Table 11).

The budget for year 2015 envisages an annual increase of 59.6% in income vis-à-vis what was budgeted in 2014. The following are the main items:

- The net yield of foreign reserves is budgeted at COP \$581.3 b against COP \$388.8 b projected in 2014. It has been estimated that the average profitability of foreign reserves for 2015 shall be 0.59%. Neither an exchange rate variation was assumed in the budget with respect to the U.S. dollar vis-à-vis the currencies in which reserves are invested (exchange rate differential) nor amendments to the international price of gold. As of the month of February, the result of the exchange rate differential recorded a loss of COP \$668.6 b due to the depreciation of the Canadian dollar (7.2%), of the Swedish krona (6.1%), of the Australian dollar (4.4%), of the New Zealand dollar s (3.2%) and of the British sterling pound (0.9%) against the U.S. dollar, while gold was appreciated by 0.5%, which meant a COP \$5.1 b depreciation. The reserve portfolio return in the remaining of the year will rely on the behavior of these variables.
- It has been estimated that bringing coins into circulation will generate COP \$267.9 b income<sup>71</sup>, with an annual increase of 74.6% against the 2014 budget, as a result of higher demand and the entering of coins into circulation.
- Income estimated from liquidity operations by means of repos (active monetary regulation operations) has been projected at COP \$127.2 b as compared to COP \$12.4 b included in the budget in 2014<sup>72</sup>; this variation

*The budget for year 2015 envisages an income amounting to COP \$1,342.0 t, with an annual increase of 59.6% vis-à-vis what was budgeted in 2014.*

71 According to the Bank's By-laws, this income pertains to the face value of the coin brought into circulation.

72 The 2015 budget assumes an annual growth of 9.8% in nominal terms in the monetary base, equal to that of the nominal GDP increased by 2.3 pp. Daily average volumes of expansion repos projected for 2015 amount to COP \$2.888.5 b, and the average interest rate of remuneration takes

Table 11  
*Banco de la República's* Projected Income Statement for 2015, under  
International Financial Reporting Standards (IFRS)  
(billions of pesos)

	Approved 2014 budget + IFRS <sup>a/</sup> (A)	Approved 2015 budget (B)	Relative change(B)/(A)
<b>I. P/L Income (A+B+C)</b>	<b>840.8</b>	<b>1,342.0</b>	<b>59.6</b>
<b>A. Monetary income</b>	<b>490.8</b>	<b>910.7</b>	<b>85.6</b>
1. Interests and returns	403.3	708.6	75.7
Foreign reserves	388.8	581.3	49.5
Returns	388.8	581.3	49.5
Exchange-rate differential	0.0	0.0	-
Monetary-regulation Investment Portfolio	2.0	0.1	(92.7)
Active Monetary Regulation Operations (repos)	12.4	127.2	-
Other	0.0	0.0	-
2. Exchange differences	84.8	200.2	-
3. Other monetary income	2.7	2.0	(27.6)
<b>B. Coins issued</b>	<b>153.5</b>	<b>267.9</b>	<b>74.6</b>
<b>C. Corporate income</b>	<b>196.6</b>	<b>163.3</b>	<b>(16.9)</b>
1. Fees	129.9	139.9	7.7
Banking services	59.8	63.3	5.8
Fiduciary operations	70.1	76.6	9.3
2. Other corporate income	66.7	23.4	(64.8)
<b>II. Total Expenditures (A+B+C+D)</b>	<b>1,589.2</b>	<b>1,873.3</b>	<b>17.9</b>
<b>A. Monetary expenditures</b>	<b>864.3</b>	<b>1,087.7</b>	<b>25.8</b>
1. Interest and returns	721.2	946.3	31.2
Remuneration of Finance Ministry accounts	349.9	377.5	7.9
Monetary-control interest-bearing deposits	301.4	519.1	72.2
Monetary-contraction operating expenses	69.9	49.6	(29.0)
2. International-reserve management expenses	31.3	33.6	7.3
3. IMF flexible-commitment fee	26.8	26.7	(0.6)
4. Exchange differences	84.8	81.0	(4.5)
5. Other monetary expenditures	0.2	0.2	4.6
<b>B. Costs of issuing and distributing bills and coins</b>	<b>200.9</b>	<b>250.8</b>	<b>24.8</b>
<b>C. Corporate expenditures</b>	<b>457.0</b>	<b>479.6</b>	<b>4.9</b>
1. Personnel costs	290.5	314.3	8.2
2. Overhead	79.5	83.8	5.3
3. Other corporate expenditures	86.9	81.5	(6.2)
<b>D. Net Pensioners' expenses</b>	<b>67.0</b>	<b>55.3</b>	<b>(17.6)</b>
<b>III. Operating result (1 - 2)</b>	<b>(748.4)</b>	<b>(531.3)</b>	<b>(29.0)</b>

a/ Budget approved by the JDBR, adjusted with IFRS methodology.  
Source: Banco de la República.

is explained by the higher average volumes in these operations and the increase experienced in the intervention interest rate.

- Net income estimated from exchange rate adjustment (COP \$119.2 b) is the outcome of the COP \$200.2 b revenue and COP \$81.0 b expenditure being the result of the U.S. dollar variation vis-à-vis the Colombian peso of assets and liabilities in foreign currency other than foreign reserves<sup>73</sup>.
- Fees and commissions received by the Bank for banking services and trust businesses are estimated at COP \$139.9 b, 7.7% above those budgeted one year earlier, mainly because of the higher income estimated from the administration of the national government TES bonds and the banking services.
- Other corporate income have been estimated at COP \$23.4 b, with a -64.8% variation resulting from the sale of the total stocks of platinum forecasted in 2014.

Expenditures for 2015 are budgeted at COP \$1,873.3 b, with an annual increase of 17.9% against the 2014 budget, mainly due to higher monetary expenditures, as follows:

- It has been projected that expenses for the remuneration to monetary control deposits constituted with resources from the placing of TES bonds in order to regulate liquidity in the economy will amount to COP \$519.1 b, which relates to an increase with respect to the budget for the duration of 2014. This increment is explained by the higher interest rate and the increased deposits made in order to sterilize the purchase of foreign reserves implemented in 2014<sup>74</sup>.
- It has been estimated that the remuneration to DGCPTN deposits in the Bank will amount to COP \$377.5 b, with a 7.9% growth rate as compared with those estimated in the 2014 budget, particularly due to the increase experienced in the Bank's intervention rate<sup>75</sup>.

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into account the current reference interest rate or repo rate (4.5% e. a.). In 2014, daily average repo operations for COP386.3 b were budgeted, as well as an average interest rate of 3.25% e. a.

73 At the closing of February 2015, the net outcome of exchange rate differences is COP \$67.8 b.

74 The 2014 budget did not take into account the purchase of foreign reserves. Nevertheless, in the course of the year, USD \$4,058 m having been sterilized in part with monetary control deposits was purchased. Indeed, the average daily balance of these deposits was budgeted for 2014 at COP \$6,536.7 b, and the average observed was COP \$9,389.2 b. For 2015, the average daily balance of these deposits has been estimated at COP \$10,139.7 b.

75 The average daily volumes of DGCPTN deposits estimated for the 2014 budget amounted to COP \$10,924.4 b, while those observed were COP \$11,122.7 b, although the 2015 budget had envisaged daily average volumes amounting to COP \$8,600.0 b. The rate projected in the 2014 budget was 3.25% e. a., and 4.5% e. a. in the 2015 budget.

*Expenditures for 2015 were budgeted at COP \$1,873.3 t with an annual 17.9% increase against the 2014 budget, mainly because of higher monetary expenditures.*

- The costs of issue and distribution of monetary species are calculated at COP \$250.8 b, higher by 24.8% than those projected one year earlier as the result of increased demand and issue of bills and coins. This item includes resources for the campaign aimed at spreading information regarding the New Peso Bill in the event of the passing thereof by the Congress of the Republic of Colombia.
- Corporate expenditures are projected at COP \$479.6b, with an annual 4.9% (1.9% real) variation against the 2014 budget, of which COP \$314.3 b relate to personnel expenses and COP \$83.8 b to overheads.
- Personnel expenses are estimated with an annual 8.2% (5.0% real) growth rate, due to the salary increases (5.0%), agreed upon in the collective bargaining in force, and increased staff for the invigoration of processes and the development of IT projects, the latter of a temporary nature<sup>76</sup>.
- Overheads have been estimated with an annual 5.3% (2.2% real) growth rate; they include, among others, expenses for utilities, safety, security and surveillance, cleaning, maintenance of electric infrastructure equipment, air conditioning, technology and Treasury area systems, most of them projected with the increment of the minimum legal wage<sup>77</sup>.
- Other corporate expenses such as taxes, insurance, depreciations, deterioration (provisions) and amortizations, discountable VAT, contributions and affiliations, cultural expenses and scholarships to individuals other than employees are estimated at COP \$81.5 b, with an annual 6,2% (-9,0% real) reduction.
- Lastly, net pensioner expenses are expected to amount to COP \$55.3 b, with a reduction of 17.6% with respect to last year' budget.

Finally, it has to be mentioned that the difference between losses observed in 2014 (COP \$1,166.2 b) and those estimated for 2015 (COP \$531.3 b) can be explained by: i) a negative exchange differential in 2014, caused by a COP \$1,055.1 b devaluation of currencies vis-à-vis the U.S. dollar, while in the 2015 budget it has been assumed that there are neither expenditures nor income for the same concept; ii) a monetary component budgeted for 2015 with net expenditures of COP \$159.8 b, higher by COP \$348.0 b than the 2014 result, mainly by less net

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<sup>76</sup> IT projects associated with the modernization and reinforcement of processes in the deputy-managers' Payment, Risk, Banking, Industrial, and Treasury Operation, and Administrative Management Offices.

<sup>77</sup> Contracts involving labor such as of surveillance, security, cleaning, cafeteria, and those dealing with the outsourcing of general, information, photocopying and microfilming services, as well as those for warehouses and counters at the "Biblioteca Luis Angel Arango" library, among others.



income due to exchange rate differences (COP \$303.9 b)<sup>78</sup> and increased net sterilization income (COP \$119.4 b)<sup>79</sup>, and iii) the net outcome of the corporate aggregate that gives rise to costs higher by COP \$72.1 b as compared with those posted in 2014 (Table 12).

Table 12  
Banco de la República's Financial Statement per main components, execution for 2014, and Budget for 2015  
(billions of pesos)

	Execution 2014 <sup>a/</sup> (A)	Budget Approved for 2015 (B)	Absolute differences (B) - (A)
<b>Results (income - expenses)</b>	<b>(1,166.2)</b>	<b>(531.3)</b>	<b>634.9</b>
<b>Exchange Differential<sup>b/</sup></b>	<b>(1,055.1)</b>	<b>0.0</b>	<b>1,055.1</b>
<b>Rest (I + II)</b>	<b>(111.1)</b>	<b>(531.3)</b>	<b>(420.2)</b>
 <b>I. Monetary Component (net)</b>	 <b>188.3</b>	 <b>(159.8)</b>	 <b>(348.1)</b>
 <b>A. Income</b>	 <b>1,069.3</b>	 <b>786.4</b>	 <b>(282.8)</b>
Active Operations of monetary regulation (Repos)	137.0	127.2	(9.9)
Investment Portfolio of monetary regulation (TES)	44.3	0.1	(44.2)
Net Income from exchange differences	423.0	119.2	(303.9)
Others net <sup>c/</sup>	464.9	540.0	75.1
 <b>B. Expenses</b>	 <b>881.0</b>	 <b>946.3</b>	 <b>65.3</b>
Remunerated Deposits with of monetary regulation (DRCM)	443.4	519.1	75.6
Liability deposits from operations with monetary regulation	13.8	49.6	35.9
Remunerated Deposits (DGCPTN)	423.7	377.5	(46.2)
 <b>II. Corporate Component (net)</b>	 <b>(299.4)</b>	 <b>(371.5)</b>	 <b>(72.1)</b>
 <b>A. Income</b>	 <b>181.4</b>	 <b>163.3</b>	 <b>(18.1)</b>
<b>B. Expenses<sup>d/</sup></b>	<b>480.8</b>	<b>534.8</b>	<b>54.0</b>

a/ Under generally accepted accounting principles (GAAP).

b/ In 2014, the exchange differential generated by the foreign reserves is included (-\$1,045.9 b), as well as the exchange differential originated in other accounts that do not make part of the foreign reserves (-\$9.2 b).

c/ Includes the income yield from foreign reserves, metal coins issued, and others, minus the costs of issuance and distribution of monetary species, the cost of the administration of the foreign reserves, the commission of flexible compromise with the IMF and other monetary costs.

d/ Includes net expenditure for pensioners.

Source: Banco de la República.

78 Exchange rate differences include the effect thereof on the Bank's assets and liabilities in foreign currency other than foreign reserves, such as contributions and obligations with the Inter-American Development Bank (IBD), the International Bank for Reconstruction and Development (IBRD), the Andean Development Corporation ("Corporación Andina de Fomento – CAF"), and the Bank for International Settlements (BIS). Incomes registered in 2014 are explained by the 24.2% devaluation observed in this year.

79 Includes the variations of: expenditures of the monetary component (COP\$65.3 b) for remunerated monetary control deposits, deposits for monetary regulation operations, and remunerated deposits to the national government; income for the valuation of TES bonds owned by Banco de la República (-COP\$44.2 b), and repos income (-COP\$9.9 t).

## BANCO DE LA REPÚBLICA'S PARTICIPATION IN THE BANK FOR INTERNATIONAL SETTLEMENTS

Act 1484 of December 12, 2011, authorized the incorporation of *Banco de la República* as a shareholder of the Bank for International Settlements (BIS). According to the authorization so granted, the Bank subscribed 3,000 BIS shares amounting to 65,712,000 special drawing rights - SDR ("derechos especiales de giro" - DEG) equal to U.S. \$100.978.710, that remain registered at their SDR (DEG) acquisition cost under the item "contributions in international agencies and entities". On 3<sup>rd</sup> July 2014, the Bank received U.S. \$998,700.91 from dividends pertaining to the BIS accounting year 2013-2014 (April 2013 through March 2014), which is equal to a 1.0% annual profitability<sup>1</sup>.

As a BIS member, the Bank takes part in regular meetings at which recent events are examined as well as global economy and financial markets. These meetings are, in addition, a discussion forum to share views and experiences in subjects and matters particularly relevant to central banking. This contributes to a better understanding of current challenges affecting several countries or markets and helps implement proper monetary policy measures.

The incorporation of *Banco de la República* to the BIS has allowed the entity to take part in the Consultative Council

for the (\*) Americas (CCA) formed by the governors of central banks of BIS member countries<sup>2</sup> in the three Americas continent, and presided over by Mr. Jose Dario Uribe, Governor since January 2014. Likewise, both the Bank and the Financial Superintendent of Colombia are members of the Financial Stability Council for the Americas, a regional advisory council attached to the BIS that coordinates the development of policies aimed at improving financial stability.

Among its activities, the CCA provides orientation in research works dealing with matters of regional interest. Last year, the Bank was involved in a new project aimed at including financial stability considerations in central banks' monetary policy models. On the other hand, the Bank takes part in the Operations Managers Advisory Group ("Grupo Consultivo de Directores de Operaciones - GCDO"), a central bank network of representatives responsible for the open and foreign exchange markets' operations within the group of financial stability directors and work teams relating to foreign reserves management. These spaces encourage cooperation among central banks as well as the analysis of matters that are common to all of them, and of mutual concern and great relevance for monetary and financial stability.

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1 The General BIS Meeting passed the payment of a 215 special drawing rights - SDR ("Derechos Especiales de Giro - DEG") per share. Profitability here relates to the ratio between the dividend received and the subscription price per share (21,904 DEG).

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2 Argentina, Brazil, Canada, Chile, Colombia, United States, México, and Perú.

### BOX 3

#### THE CENTRAL BANK'S NEW ACCOUNTING FRAMEWORK BASED ON THE IFRS

International financial reporting or information standards – IFIS/IFRS (locally: “normas internacionales de información financiera – NIIF”) are issued by a private and independent agency, as based on principles composing the global standard for the production of homogeneous, comparable and transparent information.

In this sense, *Banco de la República*’s accounting framework modernization needs in a central bank international context and, in Colombia, the process of converging towards international accounting standards deriving from the enactment of Act (“Ley”) 1314 of 2009, led to the conclusion, after a study carried out jointly by the Nation’s General Accounting Department (“Contaduría General de la Nación – CGN”), the Office of the Financial Superintendent of Colombia and *Banco de la República*, that the basic or reference accounting model applicable to the Colombian central bank is the NIIF in those aspects not being contrary to its special system as contained in Act (“Ley”) 31 of 1992 and the By-laws.

Consequently and pursuant to Resolution 743 of 2013<sup>1</sup> de la CGN, the central bank must apply the technical regulatory framework provided for in the Annex to National Decree 2784 of 2012<sup>2</sup> as modified, except in the following aspects:

- That they may be contrary to its special regime as contained in Act (“Ley”) 31 of 1992 and the By-laws (laid down by Decree 2520 of 1993), particularly the following: i) the accounting treatment of the exchange rate adjustment to foreign reserves caused by either devaluation or revaluation of the Colombian peso exchange rate with respect to the dollar of the United States of North America (By-laws’ paragraph 4, article 62), and ii) the accounting treatment of coins issued (item b, paragraph I, article 62 of the By-laws.
- With relation to standards for financial instruments -“NIC”(international accounting standard – IAS) 39 and “NIIF” (international financial information standards - IFIS) 39 -only with respect to the treatment of the credit portfolio and its deterioration, for which the special technical standards issued for

that purpose by the SFC, the Office of the Financial Superintendent of Colombia.

According to the implementation schedule, the transition period was initiated in 2014; it required the obligation of preparing an opening statement of the financial position at 1<sup>st</sup> January 2014 under the new regulation, hence the former “PCGA” (GAAP) and the new “NIIF” (IFRS) accounting standards were applied simultaneously.

Thus, the last official financial statements in accordance with the former accounting practices were those of 2014, and the first to be introduced under the new regulations will be those of 2015 requiring to be compared with the 2014 transition information within the regulatory NIIF-based framework

Major changes to be seen since 2015 in the Issuing Bank’s financial information, in addition to the submission of the financial statements and including both methodologies for a better understanding by the different interest groups, will derive from the application of the new accounting policies for the recognition, measure, and presentation in financial statements of: i) property, plant and equipment; ii) intangible assets made up of IT licenses, applications, and iii) liabilities for employee benefit obligations like retirement pensions and other labor benefits. Each one of these changes is described below:

#### Property, plant and equipment (PP&E)

PP&E is one of the Central Bank’s financial statements having gained greater importance with the application of the new NIIF-based accounting regulation. In the first place, for each kind of asset it was necessary to revise the acquisition cost by amending it in the case of real estate properties, as compared to the results of technical appraisals carried out by experts. On the other hand, the PP&E useful life and depreciation methods were adjusted in order for them to reflect the use of these assets in a more appropriate manner. Therefore, for instance, properties that were depreciated over a twenty-year period were adjusted according to the relevant use expectations by fixing for the majority a useful life of one hundred years. These two changes in accounting policies starting in 2015 reflected a higher depreciation expense that is offset, in part, by extending the useful life of these assets.

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1 As modified by Resolution 598 of 2014.

2 Whereby Act (“Ley”) 1314 of 2009 regarding the technical accounting framework for those in charge of preparing financial information pertaining to Group 1 was regulated.

Additionally, with the NIIF neither all initial disbursements required for the construction of a building or the assembly of a given machine, nor those needed subsequently to carry out improvements to these assets are eligible for capitalization as it used to be with the former accounting standards. Such is the case of maintenance, staff or personnel instruction and training for the operation or handling of the asset purchased, apart from transportation, temporary employees' payroll, and allowances for those not directly or exclusive related to the construction or location of the asset. Although these disbursements will continue to take place since they are necessary for the efficient operation or handling of the PP&E elements, under the NIIF they will reflect on "P&G"(Profit-and-loss), which would show a higher expense. When compared to the accounting methodology used up until 2014, these items composed a higher value of the asset in PP&E.

## Intangible assets

For *Banco de la República*, according to the "NIIF", intangible assets are confined to the corporate software and IT projects in the development phase. Until 2014, these assets were shown in the balance sheet under item "deferred charges", that is not envisaged in the "NIIF". These assets incorporate adjustments deriving from the revision of their useful life. Generally, now the current average useful life of corporate software is ten years, in harmony with the economic reality vis-à-vis the three years established in the former accounting policies.

This procedure involved the valuation and incorporation in books of IT applications that were in use, though previously deprived of accounting value. Consequently, the amortization of these assets will reflect on Profit-and-Loss as a lower value with respect to the prior methodology.

Computer applications developed either internally or through third parties usually include two phases: i) the research phase comprising studies and projects from the time the creation or improvement need arises, then through analyses and alternative studies formulation and design, until a solution to be developed is obtained, and ii) starting from approval of the selected option, then the development phase at which the intangible asset is constructed. Disbursements required to advance in the research phase because there is no certainty that they will become an intangible asset are not capitalized under the "NIIF" and, consequently, should be posted as expenses of the period in which they are incurred, this being an accounting policy that will result in an increase

in the expenses listed for fees, transport, allowances, and temporary staff, among others.

Besides, like in PP&E, in the intangible asset development phase, not all disbursements are capitalized but have to be accounted for in expenses, as in the case of instruction, training, temporary staff payroll and allowances for personnel whose engagement is neither directly nor exclusively related with the intangible asset development.

## Benefit plan for employees and pensioners or retirees

With the application of the "NIIF", *Banco de la República's* obligations with respect to employees and pensioners' benefits have an impact on both measure (amount) determination and acknowledgement in the financial statements, which allows for reflecting in a more appropriate manner the economic reality and make its management easier, as explained below:

In order to determine the present value of obligations, actuarial techniques based on the projected credit unit are used, which allows for a reliable estimation by the entity of the final cost of the accrued (earned) benefit of employees and retired personnel. This requires estimations to be made using actuarial assumptions with respect to their demographic - employee turnover and, mainly, mortality rate - and financial variables such as future salary increases, other benefits, and discount rates.

Although this methodology resembles that used until 2014, under the "NIIF" these obligations include, aside from the present value of future retirement pension payments, what pertains to other items (like medical and educational aids) making part of the benefit plan, with which there is an increase in the obligation.

The discounting of future payments for the different benefits in order to determine the present value of obligations and the financial cost of services in the plan takes place using market rates. From 2015 as a reference, the rates of TES bonds issued by the national government that until 2014 were lower than the fixed and decree-regulated rate, this making the obligation exhibit increases as well, for that reason.

The reasonable (market) value of assets in the plan, as accounted for in the investment portfolio administered by trust companies that was being recorded as an asset in the balance sheet, since 2015 is reflected as a lower value of the obligation for defined benefits, in order to determine in this way, the relevant deficit (net obligation) or surplus. Likewise, in the statement (profit-and-loss) account, a

net interest equal to the difference between the yield on assets and the financial cost of liabilities.

The “NIIF” do not require as an obligation the total or partial covering of the entity’s liabilities with assets earmarked for the plan; this larger or smaller coverage will reflect on either the deficit or surplus of the benefit plan that, starting in 2015, should be acknowledged as a net defined benefit asset or liability.

Las NIIF allow that both market volatility differences in the valuation of the plan assets and variations in the assumptions of actuarial calculations due to changes in – exogenous to the Bank - demographic and financial variables are reported in “other integral results” (equity).

For long-term benefits (like the five-year percent, or “quinquenio,” and the retirement subsidy or bond), the obligation is gradually acknowledged since the admission of the employee to the company, by means of a simplified actuarial calculation. It was formerly posted only at the time of meeting the conditions required to have access to these benefits.

To conclude, it is necessary to point out that adjustments deriving from the first-time application of the new accounting framework based on the IFRS, the results of which have already been explained, were displayed in the financial statements of the transition year (2014) to officially authorize the initiation of the latest accounting procedures under the new regulation standards.

# ANNEX

## POLICIES FOR FOREIGN RESERVES INVESTMENT PORTFOLIO ADMINISTRATION

*Banco de la República* administers foreign reserves according to a strict risk control framework within which policies aimed at managing the market risk are stressed, in order to prevent investment value from being significantly affected by changes in international interest rates, as well as at credit risk management for the purpose of decreasing to a maximum the likelihood of facing events of default on payments. Through these risk control policies, it is intended to keep reserves at a high safety and liquidity level. This, in turn, is associated with a more reduced profitability since, as well, the safest investments are those with the lowest returns.

According to good practice recommendations, reserve administration must endeavor to: i) have sufficient liquidity in foreign currency; ii) use strict policies in the management of the different risks faced by the operations, and iii) generate reasonable risk-adjusted returns, subject to liquidity and other risk restrictions <sup>1</sup>. How these criteria are applied in foreign reserves management is explained below:

### 1. Risk management policies

*Banco de la República* has a risk administration framework serving to identify and assess those risks to which operations are exposed, in order to keep them at low levels. The following are some of the main policies introduced in risk administration:

*Liquidity risk*: investments are made in financial assets with a permanent demand in the secondary market, in order to count on the capacity of converting reserve assets into cash in a fast and low-cost manner. The portfolio is also divided into tranches in order that some of them may be liquidated faster.

*Market risk*: through eligible asset classes and strict investment levels, the portfolio value is intended to be provided with low sensitivity to interest rate movements in the market.

*Credit risk*: Investments are made solely in assets bearing high credit ratings according to the major rating agencies, since the likelihood of default in payment in this kind of investments is very low<sup>2</sup>. In addition, maximum exposures by sector and by issuer are limited in order to reduce the impact of credit events on the portfolio value.

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1 An example of good practices in this sense can be found in the document titled “Directrices para la administración de las reservas internacionales” (“Guidelines for international reserve administration”) produced by the International Monetary Fund, that can be consulted at <http://www.imf.org/external/np/sec/pr/2013/pr13138.htm> .

2 The minimum credit rating for governments and government-related entities is A-, while with respect to private issuers, the minimum rating is A+. Historically, the percentage of issuers with these ratings having experienced payment defaults in the following year is close to 0%. If an issuer’s rating in the portfolio falls below the minimum permissible level, the exposure is liquidated in a short term.

*Exchange risk:* the Bank establishes the reserve for currency fluctuation referred to in paragraph 3 of article 61, Decree 2520 of 1993 (*Banco de la República's* By-laws). It increases in the years when currencies become stronger vis-à-vis the U.S. dollar and decreases in the years when they are weaker.

*Counterpart risk:* in order to reduce the exposure to counterparts, operations are liquidated through payment on delivery mechanisms. Additionally, counterparts for fixed income negotiations are required to be market creators, while those for currency negotiations must have high credit ratings<sup>3</sup>.

## 2. Tranches of the investment portfolio

The reserve investment portfolio that as of 31 December 2014 accounted for 94.9% of the total, is divided into two components: the working capital, and the investment tranche.

*The working capital* is intended to cover the immediate liquidity needs of reserves. It is the portfolio receiving the funds originating from the intervention in the exchange market, and its investments focus in very short-term assets denominated in U.S. dollars. Since the objective of this tranche is to provide immediate liquidity for intervention in the exchange market purposes, the working capital is concentrated in deposits and investments that can be liquidated in one day at a very low cost. The working capital level may stand between USD \$390 b and USD \$2,000 b<sup>4</sup>. As of December 2014, the working capital value amounted to USD \$820,17 b.

*The investment tranche* is implemented within a term and with an expected profitability profile higher than for the working capital. In that tranche, a higher number of instruments are invested with maturities above those found in the working capital. As of December 2014, the value of the investment tranche amounted to USD \$44,092.87 b<sup>5</sup>. In the investment tranche, the indexed and the non-indexed tranches are included. The indexed tranche (USD \$30,487.98 b) aims at having profitability similar to that of the reference index<sup>6</sup>, while the objective of the non-indexed tranche (USD \$13,604.89 b) is to obtain higher profitability than that of the index through active management.

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3 Payment on delivery mechanisms seek to make the exchange of securities for cash simultaneous, in order to eliminate the likelihood of default by either one of the parties. The International Swaps and Derivatives Association (ISDA) has established a framework agreement the objective of which is to fix the terms and conditions governing over the counter derivatives negotiated among or between entities. When the currency counterparts have an ISDA framework agreement, the minimum credit rating is A-, otherwise, it is A+.

4 This range has been defined by internal provision. The lower limit lets have a sufficient daily liquidity in the event that selling reserves becomes necessary, while the upper limit is aimed at transferring liquidity excesses to the investment tranche with higher expected profitability.

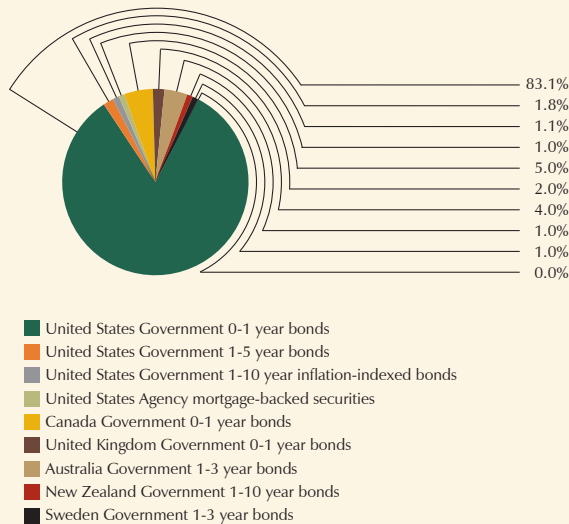
5 The investment tranche includes investments made by *Banco de la República* in funds administered by the Bank for International Settlements (BIS). One of these funds ((BISIP China) is rating separately from the indexed tranche and the non-indexed tranche.

6 In the next section, both the concept and the composition of the reference index are explained.



Investment portfolio securities are deposited with financial entities known as custodians<sup>7</sup>. Entities rendering custodian services for foreign reserves securities are the Federal Reserve of New York, Euroclear, JP Morgan Chase, and State Street.

Graph A1.1  
Composition of the Benchmark Index of Investment Tranche  
(Information to December 2014)



Source: Banco de la República.

### 3. The Reference Index

For its administration of the indexed and non-indexed tranche of reserves, *Banco de la República* defines a theoretical portfolio or reference index<sup>8</sup>. The first construction step is the determination of the foreign exchange composition. The reference index is the theoretical portfolio that meets the target exchange rate of that composition and maximizes the expected return of the reserves' investment tranche. This index serves as a reference framework to measure each portfolio's management. In the estimation of this portfolio, the restriction dealing with not having negative returns in a 12-month horizon with a 95% confidence is included, excluding the foreign exchange effect<sup>9</sup>. The result is a conservative portfolio as shown in Graph A1.1<sup>10</sup>

As of 31<sup>st</sup> December 2014, the reference index exchange target was as follows: 87%, United States dollars; 5%, Canadian dollars; 4%, Australian dollars; 2%, pound sterling; 1%, Swedish kronas, and 1%, New Zealand

dollars. In this sense, the exchange composition of Colombia's foreign reserves attempts to replicate the behavior of expenditures in the country's balance of payments. In this manner, reserves seek to cover the volatility of Colombian payments abroad deriving from the exchange rate movements<sup>11</sup>. Thus, it is intended to appreciate currencies other than the U.S. dollar in the reserves during those periods during which the value in U.S. dollars of the country's external payments increases; this implies that the value of any such currencies may be reduced against the U.S. dollar in periods when the value of payments in U.S. dollars decreases.

The high share of short-term bonds issued by the United States Government in the reference index is due to the relevance of the U.S. dollar in the foreign exchange

7 At present, the minimum credit rating for custodians is A-.

8 In capital markets, a reference index is an asset basket with predetermined weightings according to certain rules defining its composition. Generally, an index is intended to replicate in a broad manner the behavior of a financial asset market, and it serves as an indicator of the performance of other investment portfolios in the same market. For instance, some of the most well-known indices in stock markets are the Colcap in Colombia, or the S&P500 and the Dow Jones in the United States (the Bank only uses fixed income market indices).

9 A detailed description of the methodology used in the construction of the reference index can be found in Box Titled "Technical Explanation of the Reference Index Construction Methodology" in the International Reserve Administration Report of March 2013.

10 For the different sectors composing the reference index, the indices published by Merrill Lynch are used.

11 See Box "New Foreign Exchange Composition of the International Reserve Portfolio" in the Report to the Congress of March 2012 for a detailed explanation of the methodology used in the exchange composition of reserves.

composition of reserves because short-term securities are those with less sensitivity to increases in interest rates. All the issuers of securities shown in Graph 44 are rated AAA by at least one of the major rating agencies.

#### **4. External administration program**

*Banco de la República* manages the working capital directly, as well as the larger part of the investment tranche (USD \$33,120.36 b or 73.7% of the investment portfolio). The remaining resources are managed by external portfolio administrators.

By the end of December 2014, the external administration program amounted to USD \$11,792.68 b (26.3% of the investment portfolio). The purpose of using external managers is to generate returns above the reference index and train the Bank's officers in the management of international investments. The firms chosen to take part in the program have a highly experienced in financial market analysis and have a sophisticated infrastructure that can be well used in the definition of investment strategies.

Currently, the private firms taking part in the external administration program Deutsche Bank Asset Management, Fisher Francis Trees & Watts (owned by BNP Paribas), Goldman Sachs Asset Management, JP Morgan Asset Management, UBS Global Asset Management and Western Asset Management (Graph 43). Private firms are chosen through competitive processes and evaluated on a permanent basis. Funds managed by these entities are kept in *Banco de la República's* custody accounts, and administrators' agreements may be cancelled as deemed necessary. According to the results obtained by each administrator since their engagement, the administrated amount is amended and/or its continuity in the program revised. Additionally, a low proportion is invested in funds administered by the Bank for International Settlements (BIS), to which only central banks and multilateral entities have access, and the purpose of which is making investments in assets suitable for global foreign reserves in a cooperative effort among different countries<sup>12</sup>.

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12 At present, investments are made in a fund of inflation-indexed securities issued by the United States Treasury (USD \$107.3 b), rated within the non-indexed tranche of reserves, and in a fund of securities issued by the government of China (USD \$50.7 b), rated independently from the indexed and the non-indexed tranches.

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