



## BOARD OF DIRECTORS REPORT TO CONGRESS

March 2009



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March 2009

Banco de la República  
CENTRAL BANK OF COLOMBIA  
Bogotá, D. C., Colombia

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José Darío Uribe Escobar

Bogota, March 30, 2009

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

Dear sirs,

Pursuant to Law 31 of 1992, Article 5, the Board of Directors of the Banco de la República hereby submits for consideration by Congress a report on the country's macroeconomic results in 2008 and so far in 2009. The report also presents the Board's targets for this year and the outlook for the different macroeconomic variables.

The last two chapters describe the composition of the international reserves and discuss projections for Banco de la República's financial situation in 2009.

Yours truly,



José Darío Uribe Escobar  
General Director



# INTRODUCTION

*The lower vulnerability of the Colombian economy to the negative external shock and the possibility of adopting a countercyclical monetary policy without jeopardizing the inflation target are the result of the implementation of prudential macroeconomic policies during the high part of the cycle.*

The expansionary cycle of the Colombian economy, which stretched over a period of six years, reached its peak in 2007 (with a growth of 7.5%). In 2008, there was a more pronounced change in the trend than what had been initially anticipated. Last year, the economy grew 2.5%, a third of what was seen in 2007 and approximately half of what had been predicted—around 5%. In addition to the size of the slowdown, it is worth emphasizing the further deterioration of the situation. After an economic expansion of 8.1% in the last quarter of 2007, growth in the following quarters during 2008 was 4.1%, 3.9%, 2.9% and -0.7% respectively.

The slowdown in economic activity in 2008 was partly the result of monetary policy action which was oriented towards moderating the excessive growth in credit and in aggregate demand since 2006 in order to restrain inflationary pressures and to reach a path of sustainable growth. However, over the course of the year, other factors emerged that produced a sharper slowdown than what had been anticipated and one that was clearly undesirable. Among them it is worth mentioning the exchange rate upswing in the first semester which negatively affected production in the tradables sector of the economy. In 2008, the growth for this sector had been 1.8% in comparison to the 7.3% in 2007. In the second place, the slow progress on civil works, mainly on the part of local

governments, made this item of the demand fall 7.1% in 2008 when it had grown 21.5% in 2007. Likewise, the rise in the price for raw materials for a large part of the year raised the production costs for businessmen and affected industrial production which fell 2%. Also there were strikes (Cerrromatoso and the sugar cane workers) which affected economic activity. Finally, the jump in inflation, mainly in the food sector, hurt the household disposable income and this, added to the higher interest rates, caused a slowdown of 3.9% in the consumption of durable goods.

But without a doubt, the factor that accentuated the slowdown of economic activity was the worsening of the international financial crisis starting in September, 2008 through the reduction in foreign demand and smaller flow of workers' remittances. Thus, as a result of the sharp fall in the prices for oil and other commodities as well as the reduction in sales volume, mostly of industrial goods, the value of total exports in dollars went from growing at 38.5% annually between January and September to -0.6% annual growth in the last quarter. At the same time, the remittances from Colombians living abroad began to slow down and in the fourth quarter of 2008, there was a annual drop of 11.6%.

These first figures show that the international crisis has affected the Colombian economy and inevitably will continue to do so this year. That is why it has been so important make the effort in this report to understand and explain the international crisis, its origins, the measures that the developed countries have taken to face it, its effects on economic activity and the financial system as well as the effect that is now materializing in emerging economies.

The governments and central banks of the developed countries have adopted strong policy responses. However, that has not prevented the mortgage and financial crisis from extending into the productive sector of the economy and drastically squeezing consumption and private investment in those countries. Likewise, international trade, the main engine for growth during the last decade, is shrinking at a faster pace. This is affecting numerous economies, especially those of Southeast Asia which are the most open. In this context, various international entities such as the International Monetary Fund (IMF) and the Organization for Economic Co-operation and Development (OECD) have revised downwards their forecast for world growth for 2009 on the last few months. For example, in their revision for last January, the IMF estimated that the growth of the world output would reach 0.5%, a forecast that was significantly lower than the one made in November (2.2%). In mid-March, for the meeting of the G20, the IMF again changed this forecast to a range of between -0.5% and -1%.

The pertinent question is how this crisis will affect the developing countries and, particularly, the Colombian economy. As discussed in this Report, the channels by which an international crisis is passed on to emerging economies may be real or financial in character. The weakening of exports, the fall in

remittances, and the loss of consumer and investor confidence is found in the first group. The reduction in capital flows and the difficulty in getting access to sources of foreign loans is in the second.

It is very probable that the slowing trend of in exports will become accentuated in 2009 just as the projection of the balance of payments shows in this Report. Something similar is occurring with the workers' remittances from Colombians who are abroad. These are concentrated in the United States and Spain, which are two of the economies that have been the most battered by the crisis. As a reflection of the progression of the crisis, the most recent surveys show a perceptible deterioration in business and consumer confidence. This will inevitably affect their decisions about investment and consumption. With respect to capital flows, it is doubtful that the high levels of foreign direct investment seen in the last two years, which in gross terms rose to approximately US\$10.0 million (m), will be repeated in 2009. Nevertheless, it must not be forgotten that a significant number of the projects which have foreign investment are now underway and stopping them would not be economically viable. Finally, the country still has access to capital markets as was demonstrated in January with the successful placing of US\$1,000 million in public debt bonds at reasonable rates.

To evaluate what this could mean for the Colombian economy in the absence of compensating fiscal or monetary policies, the Bank's technical staff forecasts that a reduction of 1 percentage point (pp) in world growth will shrink the growth of our non-traditional exports by at least 2pp and the growth of the Colombian gross domestic product (GDP) by slightly more than 0.5 pp. This is taking into account only the direct channel of lower demand. Obviously, as a result of the above, the Bank has lowered its growth predictions for 2009. In September, 2008, it was projected that it would be possible to grow at a rate within the range of 1% to 4% this year. The most recently published growth estimate in the *Inflation Report* places it between 1% and 3%. Currently this prediction range is undergoing revision and will probably be lowered.

This means that the economic slowdown will continue to deepen in 2009. Undoubtedly, this is a perspective that causes serious concern especially because of the social effects it will have in terms of an upswing in the rate of unemployment and poverty indices. Nevertheless, there is a high probability of achieving positive growth in the midst of what many analysts now consider the worst economic crisis since the Great Depression of the 1930s. This achievement would put the Colombian economy in a healthy position to initiate a rapid recovery once the foreign crisis is overcome. The specific value of the growth figure in 2009 will depend on the magnitude and length of the international crisis as well as the performance of the Venezuelan and Ecuadorian economies which receive 43% of this country's non-traditional exports. Also the fate of the economy will depend on the actions of monetary and fiscal policy and the response of the private sector to the challenges it faces.

The high probability of achieving positive growth in 2009 is related to the same factors that accentuated the slowdown in 2008 and that this year could be favorable. Additional to this is the margin of action that monetary policy has to be able to adopt a counter-cyclical stance. With respect to the factors that could help growth, the downswing in inflation of food prices should be pointed out. This fell from 13.2% at the end of 2008 to 9.5% at the end of February and it is predicted that it will continue falling. To the degree in which the lower inflation of food frees up the consumer's purchasing power for other goods, household disposable income will improve and consequently stimulate their consumption.

Another factor that will also contribute to smooth the economic cycle is the exchange rate. The peso has depreciated more than 40% in comparison to the lowest level reached in June of 2008 without undermining the inflation target nor financial stability. The return to an exchange rate that is more competitive will stimulate production in the tradable sectors and improve the purchasing power of workers' remittances. Also, the drop in the international price for commodities will reduce production costs for companies which will improve margins and encourage production. Finally, the Ministry of the Treasury and Public Credit calculated that public sector demand will grow 5.5% in real terms this year.

Currently there is also the possibility of adopting a counter-cyclical monetary policy that will help to partially compensate the effects of the negative external shock which are already under way. During the last few months of 2008, the marginal reserve requirement was eliminated and the ordinary reserve requirement was reduced. Between December and March Banco de la República's interest rate dropped by 300 basis points (bp). The change in the monetary stance has been transmitted to all of the interest rates. The possibility of extending this policy of monetary stimulus further will depend on the speed at which projections and inflation expectations fall.

As discussed in this Report, the lower vulnerability of the Colombian economy to the negative external shock and the possibility of adopting a counter-cyclical monetary policy without undermining the inflation target are the result of the implementation of prudential macroeconomic policies during the high part of the economic cycle. With respect to this, the Report analyzes the advantages of the inflation targeting regime that guides the monetary authority to make timely decisions on successively raising the interest rate at which it supplies liquidity to the banking system. That was how the policy interest rate was raised 400 bp between April, 2006 and July, 2008. This was complimented by an increase in the marginal reserve requirements in order to limit the lending capacity of the banking system. If it had not been for this policy, the private sector would be over-indebted today and the financial system exposed to the risk of incurring in huge losses.

Other institutional arrangements and policy decisions also contributed to reducing the vulnerability of the economy. On this point the Report highlights the advantages of the floating exchange rate and usefulness of capital controls. Floating the exchange rate reinforced the inflation targeting regime by giving the monetary policy the necessary autonomy to handle the interest rate. Also, the re-establishment of capital controls between May, 2007 and September, 2008 prevented excessive short term foreign indebtedness and prevented the economy from being exposed to the sudden changes of speculative capital. This was complemented by an intervention in the foreign exchange market oriented towards moderating the volatility of the exchange rate. In doing so, a considerable amount of international reserves were accumulated which currently provide significant support to the sustainability the balance of payments. Today its balance is the equivalent of 11% of the GDP.

In addition to the analysis of the international crisis, its implications for Colombia and the detailed examination of the macroeconomic situation of the country, the Report undertakes specific and very important topics. Among them the handling of the international reserves should be highlighted. This is a topic that has acquired exceptional relevance in the current conditions of international crisis due to the higher risks associated with different portfolios and the need to have sufficient liquidity in case the international reserves have to be used.

The current report to Congress consists of five chapters in addition to this introduction. The world crisis and the channels of transmission to emerging economies are analyzed in the first. The macroeconomic management of the Colombian economy and the world crisis are discussed in the second. The Colombian economy in 2008 and its perspectives are analyzed in the third. The topic of international reserves and their management is discussed in the fourth and the financial situation of the Banco de la República is presented in the fifth chapter. In addition, this Report contains a series of boxes that delve into the technical analysis on topics that are important for the national and international situation.



# I. THE WORLD ECONOMY CRISIS AND THE TRANSMISSION CHANNELS TO EMERGING ECONOMIES

*The contagion of the crisis in the United States has caused a collapse of a considerable part of the global financial architecture and strong international credit constraints.*

*A deep recession is expected in the main developed economies during 2009, as well as a slow recovery in early 2010.*

*The negative impact of the global financial crisis has been sharply felt in Emerging Europe and Asia, and in a lower extent in Latin America.*

## A. THE CRISIS IN THE UNITED STATES, THE MEASURES ADOPTED BY THE AUTHORITIES AND ECONOMIC OUTLOOK

The mortgage and financial crisis became evident in the United States at the beginning of 2007 when various entities that specialized in subprime mortgage loans began to report losses due to the fact that some debtors had defaulted on their payments. The origin of this situation is the result of the combined action of various factors. On one hand, the world macroeconomic imbalances that accumulated during the last decade put the US economy in a deficit position and with a very low rate of personal savings. The counterpart to this was the surplus situation of a group of emerging economies, especially in Asia. On the other, the policy of subsidies to promote housing in the United States, the low requirements for collateral when loans were granted and a lax monetary policy

during the first few years of the millennium generated an ideal framework for the formation of a bubble in asset prices, particularly mortgages. All of this was framed within a rapid process of financial innovation amidst a weak regulatory environment, which were propitious to uncontrolled financial leveraging.

Between 2002 and 2005, there was a loose monetary policy in the United States with very low interest rates that, along with huge stimuli to investment in the mortgage market, contributed to the formation of a mortgage boom with significantly high jumps in housing prices. In addition, the multiplication of financial innovations allowed many of the mortgage loans to be “repackaged” in securities with high returns linked to the payment of the mortgage and mixing different maturities and risks. These securities were sold to other financial entities that thus obtained the yields derived from the rising values of housing. It should be noted that this mechanism of “securitization” was also extended to other types of loans such as credit cards and durable goods consumption. These financial instruments, which are difficult to value, made it possible to underestimate the implicit risk that the obligations in the packaged assets generated and created a framework that was favorable to excessive leveraging not only for houses, but also for the firms purchasing these securities.

Thus at the beginning of 2006, the United States was facing a bubble in the mortgage market, as well as that in other assets which fed a huge boom in the demand for goods and services that generated strong inflationary pressures. All of this was financed with high levels of domestic and foreign indebtedness generated by the high levels of fiscal and current account deficit.

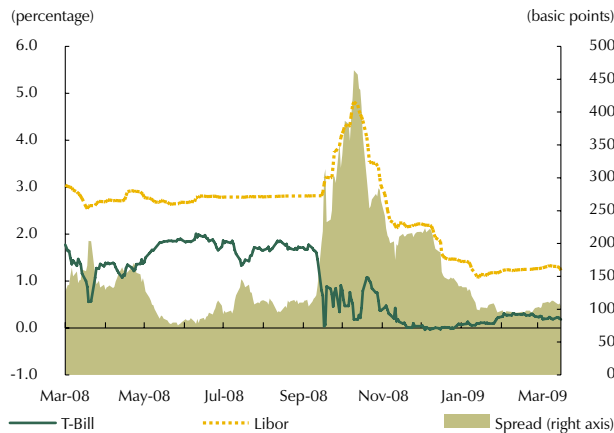
After 2006, once the rise in prices for housing and household indebtedness reached unsustainable levels, the beginning of the end of the mortgage bubble became evident. Also, in order to reduce the inflationary pressures on the economy, the monetary authorities had begun a policy of gradually raising interest rates in mid-2004.

In this context, symptoms of default by the debtors with high risk mortgages began to be seen during the first half of 2007, as well as their effects on the entities that had granted those loans. On previous occasions, the debtor default had only affected the mortgaging entities and, therefore, the effects did not spread or were very localized. However, this time it was different.

As agents with housing mortgages began to default on the monthly installments for their houses, the assets of the financial entities holding the mortgage securities began to devalue and their solvency indicators to deteriorate. The nervousness which this situation produced translated into a rising perception of risk in the financial markets and was reflected in a growing spread between the interest rates for zero risk-free interest rate.

One of the markets that was most affected was interbanking where the interest rate at which the banks make loans to each other (Libor<sup>1</sup>) rose substantially in relation to the risk-free rate.<sup>2</sup> The banks opted to invest in government bonds while restricting banking loans. The situation became even more critical between September and October, 2008 after the bankruptcy of Lehman Brothers and in the midst of the intense uncertainty associated with the bank rescue package announced by the government (Graph 1).

Graph 1  
Spread between the 3-month T-bill and Libor interest rate in the United States



Sources: United States Federal Reserve and Bloomberg.

The international market for interbanking loans is very important since it disseminates the primary liquidity that is needed for loan institutions to have the resources to grant loans to other sectors of the economy. Moreover, other interest rates in the loan markets are tied to the main interbanking market rates, i.e., Libor.

The interbanking ‘stress’ was rapidly transmitted to other interest rates on the market. This led to growing restrictions on loans, which affected the overall economy. As a matter of fact, in an environment of rising risk perceptions and as financial entities tried to sell their good quality investments<sup>3</sup> to cover the losses from the mortgage market, the problem continued to escalate and affected other financial entities that had had a lower exposure to

mortgage risk in the beginning. This liquidation of financial assets generated drastic reductions in their prices and significant losses for the investors. This unleashed a vicious cycle for the prices of securities in which the entities tried to unload them whether because they considered them risky or because they needed to get the resources to cover their losses.

The lower prices for the financial assets raised the financing costs for entities in the productive sector, which traditionally raised funds by placing commercial paper (bonds). In fact, in many cases they did not find buyers for these bonds. This, along with other things, spread the effects of the financial crisis to the rest of the sectors of the economy, since the lack of resources for the soundest companies in the United States reduced their working capital and productive capacity.

1 The London interbank overnight rate (Libor) is the interest rate that banks charge each other for non-collateral loans.

2 The rate for short term Treasury bonds which are considered risk-free is the one of the secondary market.

3 Corporate securities, stock, emerging market bonds, etc.

To summarize, financial entities that incurred in large losses were becoming decapitalized and lost their ability to grant loans to other companies and consumers. Furthermore, the above mentioned economic context increased the perception, of risk in granting loans to the productive sector. All of this, together with the continuing deterioration of the mortgage sector and the higher risk perception caused credit restrictions that have not been seen for many years in the US. This sharply reduced business production as well as employment and household wealth.<sup>4</sup>

Thus the weakness of other sectors, such as industry and a few services, began to be added to the crash of the construction and financial sectors, which accounted for 22% of the US economy's nominal production in 2007. This ended up deepening the already anticipated recession for 2008.

The financial crisis in the United States spread to other countries since their financial systems also held assets linked to subprime mortgage loans. In addition, some of these economies<sup>5</sup> had similar characteristics: excessive expenditures and asset price bubbles, particularly in real estate property, along with high levels of domestic and foreign indebtedness.

The spread of the crisis in the United States in the second half of 2008, especially after the bankruptcy of Lehman Brothers,<sup>6</sup> has caused a landslide for much of the world's financial structure and sharp restrictions on loans (credit crunch) for many economies. As the demand of the industrialized countries falls, worldwide trade is checked which, together with a severe increase in uncertainty and a generalized deterioration in confidence, has brought about a sharp slowdown and in some cases a tightening in the majority of the emerging economies.

## **1. The Policy Measures Taken by the United States Authorities**

### ***a. Monetary Policy Actions***

The economic authorities in the United States have been adopting a series of measures designed to counteract the closing of the financial markets and the generalizing of the credit crunch.

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4 Kohn, D. "Troubled Asset Relief Program," testimony before the Financial Services Committee, House of Representatives, United States, January 13, 2009.

5 For instance, Ireland, Spain, Iceland, and England.

6 The pronounced uncertainty concerning the Fed's and US Treasury's plans of action, the bankruptcy of Lehman Brothers and the rescue of the insurance company AIG by the government, were the main factors that generated risk aversion in the markets during the aforementioned period.

The Federal Reserve of the US took action on the interbanking market using the following measures:

- They aggressively reduced their policy interest rate from 5.25% in September, 2007 to a current interval between 0 and 0.25%. Along with this, they also lowered the interest rate for banks' access to the discount window.
- They set up an auction mechanism called term auction facility (TAF)<sup>7</sup> so that access to primary liquidity for all of the banks would be longer term and anonymous.<sup>8</sup> Direct repo loans were also supplied to financial institutions that had a direct relationship with the Fed (primary dealer credit facility [PDCF]<sup>9</sup>).
- Given the limited liquidity of some commercial paper, they relaxed the period and acceptable collateral for US Treasury bond loans to financial entities in exchange for bonds with different categories or ratings (term security lending facility [TSLF]<sup>10</sup>).

These actions helped to normalize the situation in the interbanking market and, during the first months of 2009, a recovery in liquidity conditions was seen as shown by the reduced margin between the *Libor* and the risk free rate (Graph 1).

In the last few months, the Fed's actions have succeeded in lowering the interbanking risk. However, the main financial entities in the US and, in particular, the two biggest banks in the country (Bank of America and Citibank) recently faced solvency problems due to the devaluation of their assets and the losses reported in their balances. This intensified the credit crunch and tightened the flow of resources towards all sectors of the economy.

As a result, the Fed found itself forced to incorporate new tools to try to re-establish the credit channel in a situation in which the policy interest rate was already close to zero. The additional instruments indicated the Fed's intention to reactivate the market in some securities that were necessary for companies'

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7 The intention behind this term auction instrument was to give all of the banks direct access to primary liquidity provided by the Fed instead of going through primary brokers in the traditional channels called *primary securities dealers*.

8 The auction keeps the companies anonymous (no problem with the discount window stigma).

9 PDCF offers overnight loans in exchange for collateral for the financial institutions that have a direct relationship with the Fed.

10 These are loans of US Treasury bonds to primary dealers in exchange for bonds with different ratings.

financing and to restore the housing loans. There are two sets of actions<sup>11</sup> among the strategies that were adopted:

- In the case of companies, mechanisms for the acquisition of high quality commercial paper (commercial paper funding facility [CPFF])<sup>12</sup> and to support liquidity in the very short term loan market<sup>13</sup> (money market investor funding facility [MMIFF]) were implemented.<sup>14</sup>
- With respect to households, the Fed together with the United States Treasury announced a new mechanism to support issues of securitization related to car, study and credit card loans (term asset backed securities loan facility [TALF]).<sup>15</sup>

Other measures related to the purchase of longer term securities within the Fed portfolio were focused on preventing the bankruptcy of entities that specialize in mortgage loans and thus tried to re-establish the housing market. As an example of this, the Fed directly purchased US\$100 billion (bn) in debt from entities such as Freddie Mac and Fannie Mae and close to US\$500 bn in mortgage securities guaranteed by federal agencies.<sup>16</sup>

The Fed has also taken action to increase the dollars liquidity of interbanking markets in other countries through bilateral agreements on foreign currency exchange (currency swap facilities).

The above measures have implied a huge increase in global liquidity and expanded the Fed's balance sheet (Table 1). A number of analysts have related these strategies to the term quantitative easing (QE). Nevertheless, according to Ben Bernanke, the governor of the Fed, this strategy could be better understood as one of credit easing (CE). CE is similar to QE in regards to the expansion of the central bank's balance sheet but different with respect to the target focus. In the case of QE, the object of the policy is the amount of reserves in the

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11 Communication with the market has been another important tool for the Fed. Even though the policy interest rate is close to 0%, the Monetary Policy Committee could have an influence on long term interest rates by announcing to the public the future course of monetary policy.

12 Through this tool, the Fed finances the purchase of commercial paper with maturity terms of no more than three months.

13 Money market is a very short term loan market with high liquidity.

14 Credit facility that the Fed grants to specific recognized financial institutions in the private sector to buy certain money market instruments issued by specific investors. The idea is to grant last resort liquidity to entities that have been destabilized by the massive withdrawal of short term investor funds.

15 The purpose of this is to assist the credit markets to accommodate the credit needs of consumers and small businesses by facilitating the issuance of ABS and improving the market conditions for these securities. The New York Federal Reserve will give the financial entity that buys the ABS a loan similar to the value of the purchase minus a haircut.

16 They also created credit lines for Bear Stearns and American International Group (AIG) that are close to 5% of the Fed balance.

Table 1  
Balance Sheet of the United States Federal Reserve  
(millions of dollars)

	September 12, 2007	September 10, 2008	March 19, 2009
<b>Assets</b>	<b>890</b>	<b>924</b>	<b>2,041</b>
Treasury and federal agency bonds	780	480	746
Repos	45	127	
TAF Loans		150	469
Other loans <sup>a/</sup>	7	24	138
Facility of short-term funds			241
Loans related to Bear Stearns		29	72
Other assets, including FX swaps	58	115	375
<b>Liabilities</b>	<b>890</b>	<b>924</b>	<b>2,041</b>
Currency in circulation	775	798	898
Reserves	32	32	778
Reverse repos	33	44	66
Treasury deposits			297
Other liabilities	50	50	2

a/ Other loans, discount window, PDCF, CPFF, ease of liquidity for ABCP Money Markets and AIG loans  
Source: United States Federal Reserve.

banks which are liabilities for the central bank. The composition of loans and securities on the asset side of the central bank is not very relevant. In contrast, with the CE the purpose is to improve loan conditions for households and companies and thus influence in the composition of the loans and securities that are assets on the balance sheet of the central bank. Therefore, the CE means that the Fed focuses its attention on policies that reduce the spread between interest rates and improve the functioning of the private loan market in general.

#### **b. Fiscal Measures**

The US Department of the Treasury guaranteed the solvency and liquidity of Fannie Mae and Freddie Mac, the gigantic mortgage agencies. Up to December, the purchases that the government made of the obligations and stocks issued by these entities reached US\$85 bn.

After the unexpected financial instability and volatility that was felt in September, 2008, the Treasury launched the *troubled asset relief program* (TARP) with US\$700 bn (5.1% of the GDP in 2007). The initial plan was to acquire the subprime assets in the hands of the financial system and help to repair their balance sheets. However, due to the strong opposition to this

use of public resources,<sup>17</sup> the objective was modified to a rescue program for financial entities in difficulties. In this, the government granted them resources in exchange for a share in their equity. By the end of 2008, US\$247 bn had been spent, 35.3% of the total, in guaranteeing the solvency and liquidity of various banks, the recapitalization of AIG and Citigroup and the rescue of the United States automotive industry. Also another US\$64 bn (9.2% of the plan) were used for other subsidies. Thus, before Barack Obama was inaugurated as president of the United States, approximately 50% of the money in TARP had been spent.

The elected government, in turn, approved an economic stimulus package of US\$787 bn (5.7% of the GDP in 2007) in February of this year. This amount was in addition to the resources in TARP. The package included US\$300 bn in tax cuts, around US\$200 bn in investment in infrastructure and technology and more than US\$250 bn in subsidies in areas such as health insurance, unemployment compensation, food stamps and education.

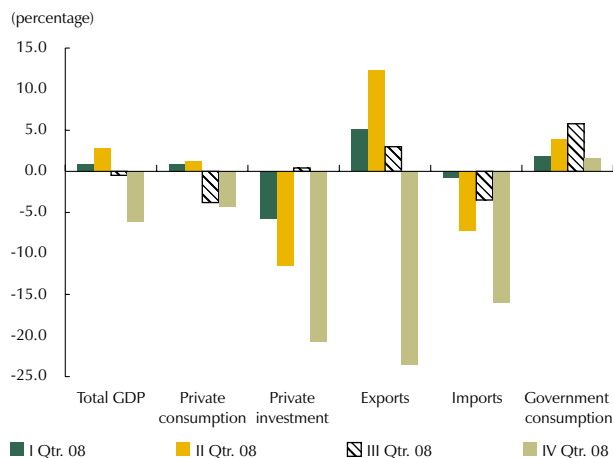
## 2. Economic Activity and Outlook

In the fourth quarter of 2008, the real GDP of the United States registered a contraction of 6.2% quarterly annualized thus confirming that the US economy was in recession.<sup>18</sup> In 2008, consumption and investment were affected by the

loss generated in household and company wealth due, in large part, to the plunges in the prices of financial and real assets (such as housing) (Graph 2) and the significant deterioration in the consumer and producer confidence levels.

In the last quarter of 2008, US consumption shrank 4.3% quarterly annualized. This is something that has not been seen since the beginning of the '80s. Likewise, some variables that deal with consumption performance show that, so far this year, the negative trend is continuing. Actually, indicators such as retail and car sales have fallen sharply –9.8% and 37% respectively– in contrast to the same month in 2008 (Graph 3). The deterioration in the labor market, the restrictions on access to credit and the losses in wealth caused by the steep depreciation in

Graph 2  
Real GDP growth in the United States in 2008  
(quarterly annualized changes)



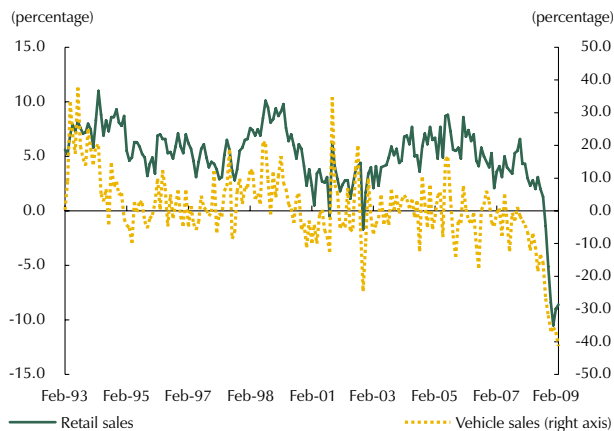
Source: Bureau of Economic Analysis (BEA).

17 This was due to the perception that it was more to help the owners of the entities than to help the entities.

18 From the technical point of view, there is a recession when a country has negative quarterly growth for two or more consecutive periods.

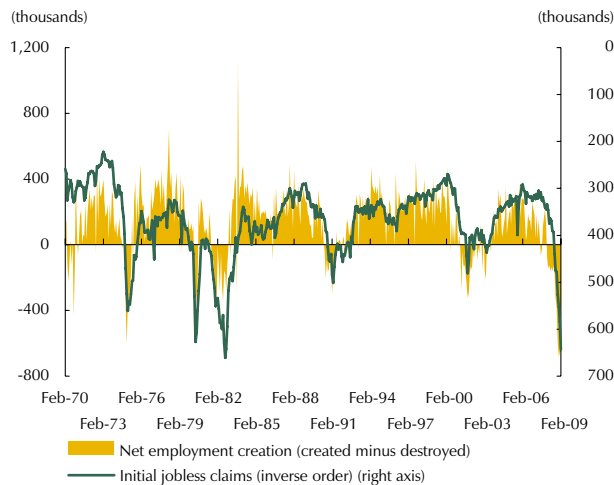


Graph 3  
Sales in the United States  
(annual variation of monthly data)



Source: Bloomberg.

Graph 4  
Employment situation in the United States  
(monthly data)



Source: Bloomberg.

the value of assets suggest that the recovery might take several quarters.

During 2008, 2.6 million job positions were destroyed and the situation does not seem to be improving since, in January of this year, the cutbacks in personnel rose to 598,000. The unemployment rate for the first month of the year was 7.6%, a number that has not been registered since 1993. At the same time, in January 583,000 more initial jobless claims were received (Graph 4). Some analysts think that towards the end of 2009, the unemployment rate could reach levels of over 10%.

Investment has been one of the variables that has been most affected by the crisis. Housing investment dropped 22% quarterly annualized at the end of the year and no recovery is expected soon. Non-residential investment shrank by 21% quarterly annualized during the same period, and information, such as new orders for capital goods, indicate worsening in the last three months.

With respect to the supply side, the industrial production index exhibited a fall of 10% in January with respect to the same month the year before and the survey of business sentiment in manufacturing (from the ISM index) shows a deterioration which has not been seen since 1980. As a result, it could take several quarters for businessmen to recover the confidence to invest.

Annual inflation in the US economy has been dropping rapidly together with the plunge in oil and other commodity prices. In fact, the price index for February, 2009 with respect to the same month for the previous year was 0.2%. Given the fall of aggregate demand and the dropping prices for oil and its derivatives, the risk now for some of the industrialized countries is deflation or, in other words, a general fall in prices that could lead to negative annual changes.<sup>19</sup>

19 In contrast to inflation, deflation occurs when there is general fall in price levels. These two phenomena have equally negative effects on economic activity. In particular, in the current economic situation there are two problems associated with deflation. The first is when the agents, knowing that prices are falling, prefer to postpone current buying for future consumption. Thus, this causes a worsening of current demand and as a consequence, a drop output. The second is related to debt and affects people when they have debt since, as prices decline, the debtor's obligation becomes more expensive in relative terms.

The unwinding of world demand has translated into a contraction of international trade. In the United States, for example, exports plunged 24% in the last quarter of 2008 (quarterly annualized change) while their imports dropped 16%. This translated into a negative contribution to the GDP growth on the part of net exports during that period.

With that situation, the outlook for a recovery in the US economy is low and will depend in large part on overcoming crucial problems such as the credit crunch, asset devaluation and the effectiveness of the public expenditure plans announced by the recently elected government. Analysts such as the Union Bank of Switzerland (UBS) and Goldman Sachs predict that the fiscal deficit for 2009 could rise around 10% of the GDP.

The uncertainty about the effectiveness of the fiscal stimulus is quite high. The part that is intended for reducing taxes, by means of which the authorities hope to jump boost consumption, may not cause greater demand but instead an increase in household savings. This risk is even higher if the high level of consumer indebtedness in this country is considered. In fact, the propensity to save had already begun to rise in 2008. With respect to the higher expenditure on infrastructure, it is not clear that this can be done rapidly, which is why these policies may take more than a year to show results.

In conclusion, the scenario for the US economy in 2009 includes a deep recession that could last several quarters while at the same time a slow recovery is expected around the beginning of 2010. This perspective would be conditioned to the short term impact that fiscal stimuli and financial measures could have.<sup>20</sup> As was mentioned before, the above has been framed within a process of slowing inflation and expectations which has allowed a laxer monetary policy.

## B. WHAT HAS HAPPENED IN THE OTHER DEVELOPED ECONOMIES?

In developed economies, i.e., Japan, the Euro Zone and England, a serious contraction of economic activity which has not been seen for several decades has been seen. Just like in the United States, the collapse of dynamic growth has been related to the bubble in real estate along with a confidence crisis in their financial markets. The deterioration of liquidity and solvency for the majority of banks and financial institutions has resulted in an abrupt breakdown of credit. This has lowered aggregate demand, weakened economic expectations and reduced trade.

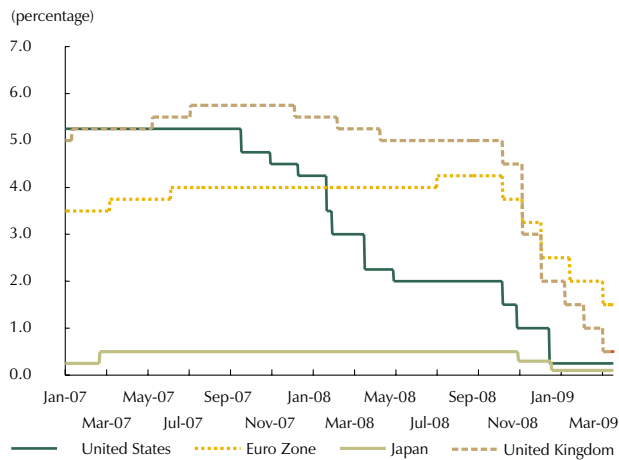
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<sup>20</sup> Furthermore, there is a risk that second round effects will be produced in the financial markets and in real activity.

The situation in the euro zone has been aggravated by rigidities in terms of monetary and foreign exchange policy. Several countries that show an advanced phase of a contracting cycle have not been able to carry out shock policies on interest rates and the currency exchange market. At the same time, fiscal policy is limited by the Maastricht standards,<sup>21</sup> an agreement that several countries will probably be forced to break. The aforementioned deterioration in the region's financial system was exacerbated due to the tight links that their banks have with Eastern Europe.<sup>22</sup>

The Japanese economy has shown very poor growth for the last decade for reasons that are similar to those behind the current crisis in the United States: an asset bubble and a collapse in the credit channels. The later occurred in the context of excessive laxness in granting loans on the part of banks. Furthermore, it suffered a severe external shock as a result of the Asian crisis and the Russian crisis that made the situation worse. In spite of enormous efforts by the Japanese economic authorities to drag the economy out of its stagnation throughout the decade, the results have not been satisfactory. Currently, it has not been possible to re-establish the credit channel nor economic activity. This has been related to the momentum of persistent deflation.

Graph 5  
Central Bank interest rates in some developed economies



Source: Bloomberg.

Since October, 2008, the critical economic situation has caused the monetary authority of developed economies to rapidly lower their policy interest rates (the United Kingdom had already begun to cut them slowly as of November, 2007). By March, 2009, the European Central Bank (ECB) had reduced its rate from 4.25% to 1.5%. The Bank of England (BoE) had done the same from 5.75% to 0.5% and the Bank of Japan (BoJ) from 0.5% to 0.1%<sup>23</sup> (Graph 5). The same thing has happened in some Nordic countries, Australia and New Zealand.

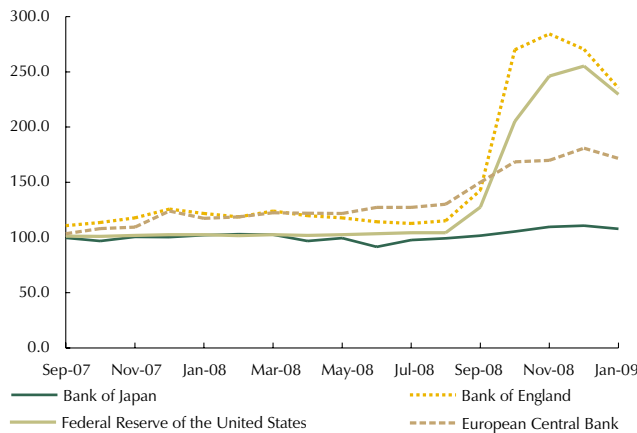
The balance sheet of central banks balances in developed economies had not shown significant changes in real terms for the last few decades. Nevertheless, in September, 2008, the assets of

21 Within the standards of the Maastricht Treaty for countries in the euro zone, a relationship of public debt over GDP that is under 60% and a fiscal deficit under 3% is highlighted with respect to fiscal matters.

22 The difficult macroeconomic situation that this region has will be presented in the following section since it is one of the major unknowns in the development of capital flows towards emerging countries for the current year.

23 According to what various members of the BCE have said, the meager reduction this bank has made in the interest rates in comparison with those made by other central banks is due, among other reasons, to fear of inflation and, more recently, the aversion to creating new bubbles in assets that are healthy so far.

Graph 6  
Total central bank assets  
Index August 2007 = 100



Sources: Central Banks.

these banks began to rise –to a greater degree in the United States and the United Kingdom (Graph 6). Obviously, a growth in the balance sheet like the one seen in developed economies implies several risks. Part of the expanded balance could turn into the creation of money as a result of which inflationary pressures could appear in these economies in the future. Moreover, excessive intervention in the financial markets by central banks, especially in interbanking, could generate incentives for private banks to not resume their brokerage work rapidly.

The governments of some of these economies, in turn, approved or announced various rescue plans in 2008 and the first few months of 2009. The European Union launched a 200 bn (approximately US\$260 bn) economic recovery program, which represents

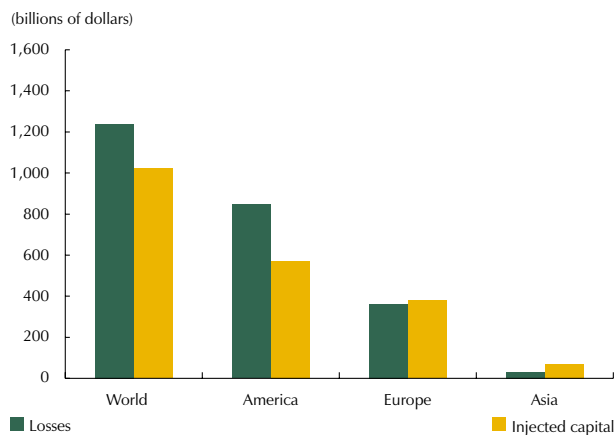
around 2% of the GDP for 2007 for that region, oriented towards expenditures on infrastructure, welfare funds and protecting employment. The United Kingdom announced a £20 bn (approximately US\$28 bn) plan, or in other words, 1.4% of the GDP for 2007 to support the economy through tax cuts. In the case of Japan, two stimulus packages have been approved since October, 2008 and a third plan was announced during the first few months of 2009. Once this is approved, it, together with the previous ones, will add up to ¥12 t (US\$123.9 bn), around 2.3% of their GDP.

The efforts made by the economic authorities have been reflected in an easing of liquidity conditions and a reduction in market interest rates. Nevertheless, the credit channel has not been re-established in Europe or Japan and the restrictions on credit have risen. Just as in the United States, the deterioration of the

financial entities' assets, not only loan portfolios but also investments, has generated significant solvency problems (especially related to the mortgage sector due to the toxic assets from the subprime crisis) (Graph 7). The losses in the financial sector (US\$1.239 bn) that have been reported for developed economies from the beginning of the crisis up to now are higher than the capital injections, which shows a public and private capitalization deficit in the financial system. However, it must be emphasized that the capital injection in Europe is slightly higher than the losses from its financial entities.

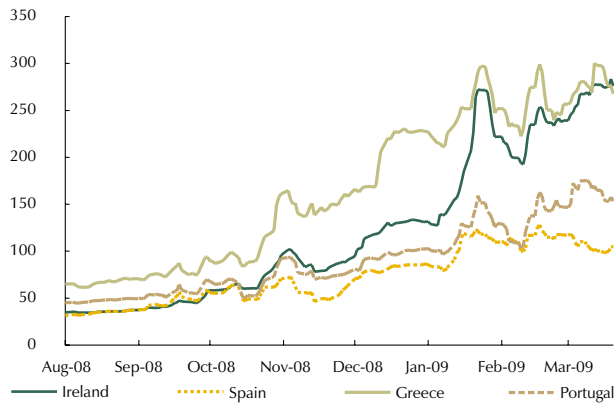
In the fiscal field at the beginning of the year, the European Commission reported projections for the deficits of several countries in the region for 2009 that were well above the ceiling established in the

Graph 7  
Losses and injections of capital into the financial system since the beginning of the subprime crisis



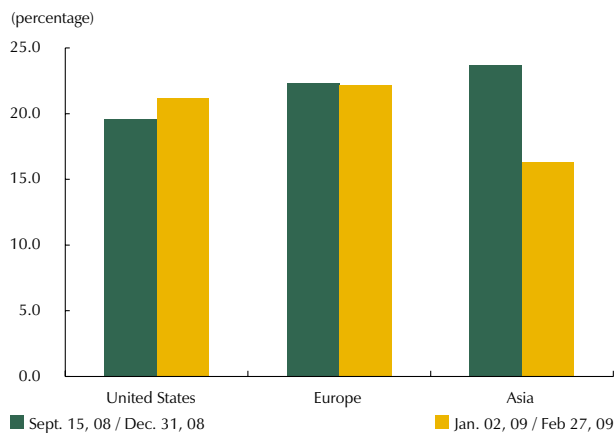
Fuente: Bloomberg.

Graph 8  
10-year sovereign debt spread with Germany  
(basic points)



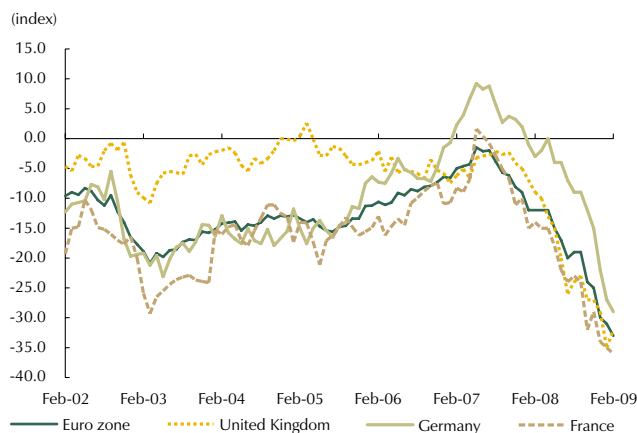
Source: Bloomberg.

Graph 9  
Falls in the stock markets of developed economies



Source: Bloomberg.

Graph 10  
Consumer confidence indicator in Europe



Source: Bloomberg.

Maastricht Treaty (3%). Among them the case of Ireland stands out with an expected fiscal deficit of 11.0%. Other relevant cases are Spain (6.2%), Italy (3.8%) and Greece (3.7%).

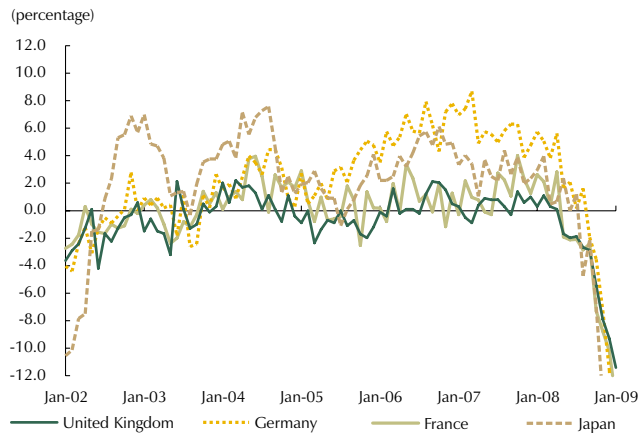
As a consequence, the existing pressures on the national treasuries due to governmental assistance, together with the worsening of the financial system and the solvency conditions of commercial banks, has made the perception of risk in economies that are traditionally considered stable rise and even affect their credit rating. Graph 8 shows how the spread between interest rates that a sovereign bond from one of the above mentioned countries pays in comparison to a German bond (lowest risk security in the region expressed in the same currency) has widened. This becomes a market signal that investors have stopped considering the issues of various large countries in the region to be risk-free. This is especially valid in the cases of Ireland and Greece.

From the acceleration of the financial crisis in mid-September, the stock market indices had plummeted 37% in Europe and around 34% in Japan and the United States while the 2009 year-to-date fall has been 20%, 15% and 20% in Europe, Japan and the US (Graph 9).

Consumption in Europe and Japan plunged in 2008 and the outlook is not encouraging. The downward trend remains steady in indicators such as retail sales. In the Euro zone, they fell 1.5% (annually) in December while in Japan the downturn was 1.8% (annually) in January. The weakening of economic conditions, the uncertainty and risk aversion have strongly affected the expectations of economic agents. Indicators of consumer confidence and market sentiment were at historic lows (Graph 10).

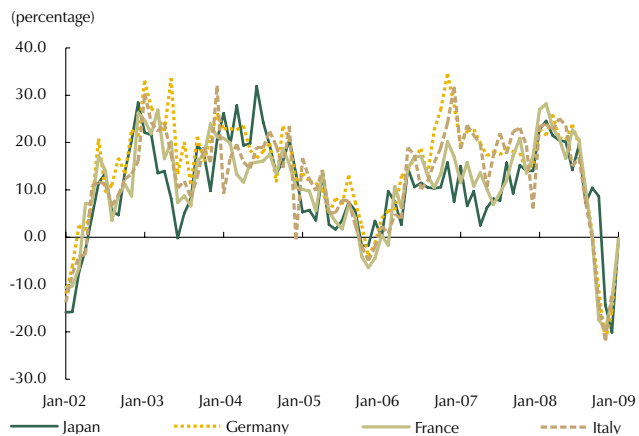
The labor market has weakened simultaneously in these economies. In the United Kingdom, the unemployment rate rose from 5.2% at the beginning of 2008 to 6.3% at the end of the year. At the same time in Japan, it rose to 4.1% in January, 2009 while it had been 3.8% in the same month of the previous year. In the euro zone, unemployment was at 8.2% in January of this year having risen 0.9 pp in 2008.

Graph 11  
Industrial production in Europe and Japan  
(annual variation of monthly data)



Sources: Bloomberg and Datastream.

Graph 12  
Exports in Europe and Japan  
(annual variation of monthly data)



Source: Bloomberg.

In particular, there are some countries within the European Union that have more rigid labor markets such as, for example, Spain. This makes adjusting the economy in the face of a crisis much slower and more painful than in the US.

In another area, indicators such as the industrial production index for the euro zone and the United Kingdom showed downturns of 12% and 9.4% (annually) respectively as of December. Japan, in turn, showed a significant plunge in January of around 31% (Graph 11). Likewise, surveys of business climate and business sentiment, which measure the outlook of economic activity from the point of view of the producer, show that recovery could be delayed several quarters.

A serious weakening of international trade has been seen in developed economies. Declines in exports from the main European economies in current dollars ranged between 12% and 20% and in Japan, the fall was 20%.<sup>24</sup> This weakening of world trade may affect economies like Germany, Netherlands and Japan, in particular, where the growth engine is related to foreign trade (Graph 12).

Finally, the sharpening of demand in Europe and Japan has made the inflationary pressures diminish since the second half of 2008 thus and have favored the adoption of an expansionary monetary policy. In January, annual inflation for the United Kingdom and the Euro Zone was 3% and 1.6% respectively while for Japan, it was 0.4% in December.

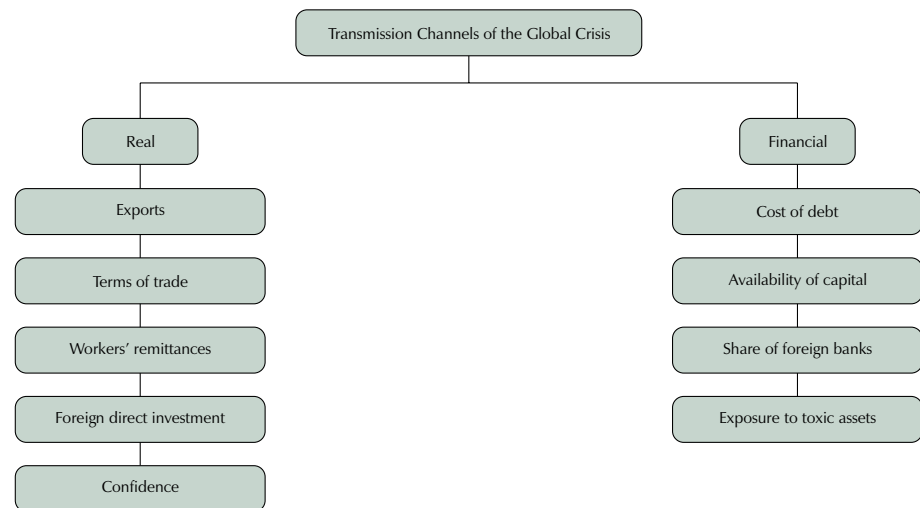
Consequently, and just as in the United States, a deep recession is expected in the rest of developed economies, which might show signs of recovery by the end of 2009. The uncertainty about the implementation and effectiveness of the stimulus plans is quite high. Therefore, it will be necessary to wait until the second half of the year to begin to see the effects. Moreover, it is feared that world trade –one of the growth engines of the last few decades will fall severely as a result of the lower world demand and of protectionist policies that various countries may adopt.

<sup>24</sup> In January, 2009, the customs data on the Japanese economy showed a contraction of 45% in comparison to what had been seen in January of the previous year.

## C. POSSIBLE TRANSMISSION CHANNELS OF TRANSMISSION TO EMERGING COUNTRIES

The developing economies have been affected differently by the world situation. Some have undergone serious initial difficulties and it is estimated that others will take longer to get out of the crisis. For now, it can be stated that the negative impact has been felt markedly in the emerging European and Asian countries and slightly more moderately by Latin America. Anyway, no economy could be armored against the international crisis, particularly as the situation keeps worsening. Below, the effect of the world crisis on the main blocks of emerging countries is described based on their distinct transmission channels (Diagram 1):

Diagram 1  
Transmission Channels of the Global Crisis



### 1. Emerging European Countries

Among the most affect countries with the least foreign financing are those in Eastern Europe.<sup>25</sup> The majority of them were caught by surprise in a very vulnerable situation reflected in large deficits in their current accounts,<sup>26</sup> high dependency on financial flows and elevated levels of foreign debt as a share of GDP.

These economies, which were financed by foreign direct investment (FDI) or short term capital flows, had financial systems that were primarily made up of

25 Hungary and Latvia, and Estonia, Lithuania, Ukraine and Bulgaria in a lower extent.

26 Including over two digits as a share of GDP.

foreign banks which have cut back on their operations in different countries.<sup>27</sup> In view of the shutdown of foreign credit, the governments had to resort to emergency loans from the IMF. Furthermore, the majority of these countries have a system of fixed exchange rates, which combined with their foreign imbalances made them very susceptible to a crisis. That is why the rating agencies have lowered the credit rating for some of them.

The main strength in the majority of these countries is a good fiscal situation with a low domestic public debt as a share of GDP.

## **2. Emerging Oil-Exporting Countries**

A number of the oil-exporting countries are undergoing a reversal of their fiscal balances and current account which is leaving them in a deficit situation. The savings that they amassed during the oil price boom, will have to be used now to support their growth and pay the debts that the corporative and financial sectors acquired. These countries show several vulnerabilities due to the existence of contingent liabilities issued to support the financial system, or to the tightness of credit conditions and their high exposure to real estate markets (such as Kuwait or Dubai). Several of these nations also acquired significant short term debts in proportion to their total foreign debt during the boom.

Among this group of countries, Russia has received special attention by the market. Although at the moment, they are not expected to default on their sovereign debt commitments (as occurred at the end of the last decade), their corporative and financial sectors have debts that currently exceed their supply of international reserves. Even though in 2008, they got some refinancing of their debts, a significant amount of these will mature in 2009 and the depreciation of the ruble will increase the risk of non-payment.

The economic indicators for Russia have deteriorated as oil prices have fallen, and in 2009 twin deficits are expected (fiscal and current account deficit) for the first time in ten years in an environment in which there will also be a severe economic slump. The ruble's loss of value, the absence of financing and the fall in consumption could cause a crisis that has already begun to be seen in a higher loss of jobs than the one experienced in the financial crisis of 1998. The accelerated sale of international reserves and the use of assets in their reserve funds to finance the fiscal deficit (above 10% of the GDP) could lead to a change in their credit risk rating and affect to the rest of emerging countries the same way it did towards the end of the 90s.

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<sup>27</sup> As a consequence of the international financial crisis, foreign banks will be planning to cut back on their operations outside of their own countries. In addition, some of the aid packages that are being granted in developed nations are tied to the stipulation that they may only be applied to operations within their own territory.



### **3. Emerging Asian Countries**

These countries are facing the crisis in a situation in which most of them do not show serious vulnerabilities: they do not have strong foreign imbalances; they have high rates of savings; and their financial systems are healthy. Nevertheless, they have registered a significant slowdown, especially since the last quarter of 2008.<sup>28</sup>

The fall in economic activity is attributable to several factors of which two stand out. In the first place, these economies, which are very dependent on foreign trade,<sup>29</sup> are facing a serious fall in exports due to lower world global. This will affect not only the GDP but also families' disposable income. Moreover, a appreciable number of the households in several of these nations were stockholders and their income has been negatively affected by the performance of the stock markets and housing prices. Due to the above, Asia in general could face two recessions: a domestic one and a foreign one.

The Asian giant, China, does not seem to be at risk of financial difficulties but their economic indicators have seriously weakened in the last few months. According to IMF estimates, the real GDP growth could fall to 8% in 2009 in comparison to the 10% registered in 2008. However, lower growth cannot be discounted depending on the degree in which exports fall, domestic demand weakens and investment slows down as a consequence of the slowdown in construction. All of this is despite the package of government aid that includes intense investment in infrastructure and social expenditures. The international crisis has also meant a weakening of the balance of payments for countries such as Korea and Indonesia as a result of which, they have had to resort to IMF loans in recent months.

### **4. Emerging Countries in Latin America**

In spite of the confidence crisis that has been generated in the international financial system, few countries in this region have had to face a sudden drop in capital flow and some of them, i.e., Brazil, Mexico and Colombia have been able to place debt instruments at higher prices but nonetheless favorable ones. Unlike what has occurred in other emerging countries, the countries in Latin America have not had to resort to emergency loans from the IMF. Nevertheless, if the crisis continues in the developed countries, financing problems could get worse in the next few months.

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28 The most recent information indicates that Hong Kong, Singapore, South Korea, and Taiwan all experienced drops in the nominal GDP in the fourth quarter of 2008 that were more than 15% and this year, they are expected to have real reductions in this variable that are between 3 and 5%.

29 In Singapore, exports were 186%; in Hong Kong, 166%; in Malaysia, 82%; in Taiwan, 60% and in Korea, 50%.

With respect to economic activity, Latin America underwent a slowdown starting in the second quarter of 2008 which could worsen in 2009. The Economic Commission for Latin America and the Caribbean (ECLAC) estimates that growth for the whole region will go from 4.6% in 2008 to 1.9% in 2009 (Table 2). According to this entity, there will be a slowdown in all of the countries but they do not expect negative rates.

Table 2  
Recent Performance and Eclac Growth Forecast for Latin America  
Total GDP  
(millions of dollars at constant 2000 prices)  
Rates of variation 2006-2009

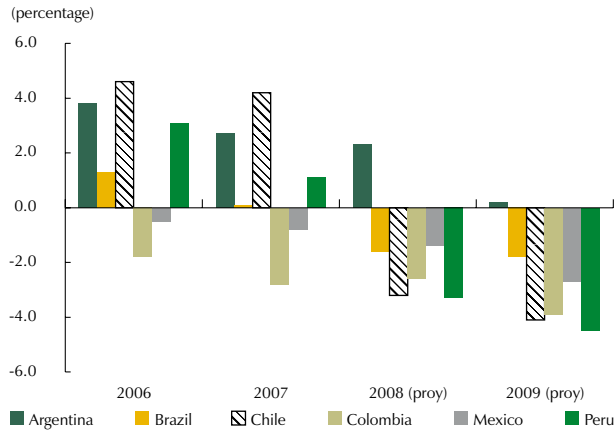
Country	2006	2007	2008	2009
Argentina	8.5	8.7	6.8	2.6
Bolivia	4.8	4.6	5.8	3.0
Brazil	4.0	5.7	5.9	2.1
Chile	4.3	5.1	3.8	2.0
Colombia	6.8	7.7	3.0	2.0
Costa Rica	8.8	7.3	3.3	1.0
Cuba	12.1	7.3	4.3	4.0
Ecuador	3.9	2.5	6.5	2.0
El Salvador	4.2	4.7	3.0	1.0
Guatemala	5.3	5.7	3.3	2.0
Haití	2.3	3.2	1.5	1.5
Honduras	6.3	6.3	3.8	2.0
Mexico	4.8	3.2	1.8	0.5
Nicaragua	3.9	3.8	3.0	2.0
Panama	8.5	11.5	9.2	4.5
Paraguay	4.3	6.8	5.0	2.0
Peru	7.6	8.9	9.4	5.0
Dominican Republic	10.7	8.5	4.5	1.5
Uruguay	7.0	7.4	11.5	4.0
Venezuela	10.3	8.4	4.8	3.0
<b>Subtotal Latin America</b>	<b>5.8</b>	<b>5.8</b>	<b>4.6</b>	<b>1.9</b>
<b>Caribbean</b>	<b>6.9</b>	<b>3.8</b>	<b>2.4</b>	<b>1.4</b>
<b>Latin America and the Caribbean</b>	<b>5.8</b>	<b>5.7</b>	<b>4.6</b>	<b>1.9</b>

Source: Cepal based on official country figures.

The channels that have influenced the most this lower performance have been: i) the fall in international prices for commodities, ii) the decline in foreign demand for the export goods from this region, iii) a lower flow of workers' remittances, iv) rising costs in financing conditions and v) a deterioration in the levels of confidence that has reduced both consumption and investment.

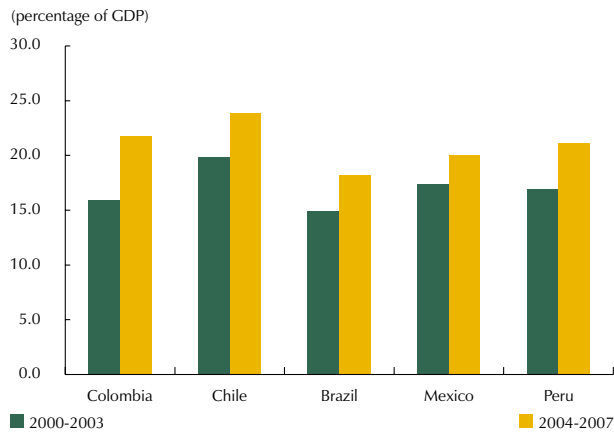
Graph 13

A. Current account as a share of GDP



Source: Latin American Consensus Forecast; March 2009.

B. Average rate of savings in Latin America



Source: Banco de la República calculations based on information from central banks.

The lower vulnerability of certain countries in the region has been associated with coherent macroeconomic policies that were carried out in the last few years. The first one was the adoption of an inflation targeting plan with exchange rate flexibility that makes it possible to implement counter-cyclical policies. At the same time, the current account deficits for these countries are at sustainable levels and savings rates have risen (Graph 13). Furthermore, households do not have a significant percentage of their wealth in securities and the financial system is still solid. Nor is there evidence that housing prices have plunged (as has happened in the developed and Asian countries). Although consumption in the region has slowed down, the landing seems to be gentler than in other latitudes around the world.

## II. MACROECONOMIC MANAGEMENT OF THE COLOMBIAN ECONOMY AND THE GLOBAL CRISIS

*The experiences drawn from the depression of the 1930s and from other periods of global economic contraction have shown the importance of using countercyclical monetary, fiscal and financial policies with purposes of macroeconomic stabilization.*

*In the past years Colombia has adopted a series of macro prudential policies that have generated a more favorable economic scenario to adopt countercyclical measures and to address in a better way the current global economic crisis.*

The experience of an economic crisis as severe as the one faced by Colombia at the end of the 90s, generated an important change in the orientation of its economic policy in the following years. That period showed that a country that accumulates significant macroeconomic imbalances reduces its maneuverability margins and becomes vulnerable to unexpected shocks. The impossibility of financing a high deficit in the current account due to the stop of capital flow in 1999 forced a significant adjustment in investment and private consumption. This resulted in a sharp contraction in demand. Likewise, public expenditure, which had increased significantly prior to the crisis, made it harder to carry out a counter-cyclical fiscal policy. Real estate exhibited a clear bubble, and furthermore, the financial system was weak, short of capital, with low provisions and facing heavy losses caused by the mortgage crisis. Under these conditions, the external shock that the Asian and Russian crisis produced ended up generating a 4.1% contraction in the GDP, a financial crisis and an unemployment rate over 20%.

Colombia once more faces a severe external shock, but with very different characteristics. However, the economy is now stronger. Something that changed from that time to this was the orientation in macroeconomic management.

The harsh experience of the 90's left a lot of lessons and perhaps, the most important one was the need for a prudent economic policy. This has been expressed in various ways throughout this decade. First, the adoption of an inflation targeting regime with exchange rate flexibility that, as will be explained later, is an inherently counter-cyclical policy system that protects the economy from falling into excesses that will make it more vulnerable.

Second, there is a foreign exchange management that allows for floating exchange rates and all the advantages this has (as explained in this chapter). Third, restrictions were implemented which were geared towards preventing excessive leveraging of the financial system in foreign currency and also preventing currency mismatches that will endanger its foreign financing. Fourth, a prudent fiscal policy that would tend to make public debt sustainable and set public finances on a sound basis. Finally, prudential financial regulation was established to ensure a sound financial system.

All of the above, combined with the suitable use of instruments such as currency exchange intervention and capital controls at necessary times, allowed a significant accumulation of international reserves and prevented the country from becoming exposed to the volatility of speculative capital.

In this section, the characteristics and advantages of this macro prudential policy, which has allowed the economy to be better prepared to face external shocks such as the current one, are discussed quite broadly.

## A. WORLD EXPERIENCE AND LESSONS FOR COLOMBIA

The experiences in economic slumps drawn from the depression of the 1930's and from other periods of economic contractions in developed countries, have shown the importance of the satisfactory use of monetary, fiscal and financial policies which are focused on achieving macroeconomic stability.

As a result, in recessions and periods of low inflation rates, the central banks of developed countries reduce their policy interest rates in order to encourage consumption and investment. In contrast, during boom periods, interest rates rise and the monetary stance becomes more restrictive to avoid inflationary outbreaks and unsustainable economic growth.

The industrialized countries have also used the fiscal policy as a stabilizing instrument. At times of strong expansion, governments reduce their expenditures to contribute to control inflation and thus, smooth out the cycle and save for possible future crises. During recession periods, they use their savings and increase public expenditure in infrastructure, education, technology and social security to ease the effects of the fall in household income.

The goal of financial regulation, in turn, is to favor the stability of the financial system and to assure the smooth operation of the payment, savings and loan system, which are basic requirements for achieving long term sustained growth.

The advantages of the suitable use of counter-cyclical policies are undeniable. This is why, due to the current economic crisis and in a context of declining inflation, the governments of developed countries have announced strong liquidity injections and reductions in the policy interest rate on the part of their central banks, as well as increases in public expenditure.

with respect to emerging countries, the history of the last century shows that counter-cyclical policies could not be used. Characteristics such as the ones described below caused the monetary, fiscal and financial measures that were adopted in crisis periods to accentuate such recessions:

- Periods of crisis generally took place in an environment of high deficits in the current account and in the public sector, together with foreign credit restrictions. With the above, risk perception deteriorated, currencies depreciated and there was an outflow of capital that worsened the problems of foreign financing for the private and public sectors. The lower tax revenue collection and a lower capacity than other regions to make future payment, imposed significant reductions in public expenditure, and made the crisis more severe.
- The high inflation rates that the developing countries were facing and the low commitment of the monetary authority to reduce them would not allow for counter-cyclical policies. Inflation expectations remained high and contributed to keeping long term interest rates at high levels, thus making foreign and domestic financing costly.
- Financial regulation was also lax and encouraged macroeconomic imbalances. Financial entities were allowed to borrow in foreign currency and lend in local currency. This deepened credit cycles and generated greater dependence on foreign financing. These currency mismatches, besides making banking supervision harder, left them in a risky situation with respect to unexpected depreciations in periods of world crisis.

To reduce these vulnerabilities, several developing countries have adopted various precautions. First of all, they gave their central banks a constitutional mandate to bring inflation down. Likewise, they established clear rules to control public expenditure, and created stabilization funds to save during boom times and to spend at times of low growth. They also improved financial regulation.

## B. INFLATION TARGETING: ITS ADVANTAGES AND MEASURES TAKEN

Starting in 1999, the monetary policy in Colombia has been guided by an inflation targeting regime with exchange rate flexibility. Its objective is to reach the target fixed by the authorities for each year and, in the long term, to achieve an inflation rate ranging between  $3\% \pm 1$  pp. All of this is in support of promoting the maximum sustainable growth of output and employment.

Monetary policy decisions are made based on the analysis of the current situation and outlook for the economy's growth as well as of agents' inflation expectations, the forecasts of price increases and their deviations with respect to the targets. If it can be deduced from such analysis that aggregate demand is growing beyond what the economy can produce or that inflation expectations or forecasts surpass the inflation target, the monetary policy must be restrictive, and vice versa. The application of this policy is carried out by means of alterations in the Bank's policy interest rates or through other instruments such as banking reserve requirements.

The management of the monetary policy during the current decade illustrates the operation of the inflation targeting regime. From 2000 until October 2005, the Bank reduced its intervention interest rates by 600 bp when there was decreasing inflation and the growth of the economy was lower than its potential. The monetary stimulus, the growth in foreign demand, the improvement in the terms of exchange, the recovery of private investment and the strengthening of the financial sector helped the economy to achieve a growth rate of 5.7% in 2005 when it had been 2.4% in 2000.

In 2006 and 2007, the rate of economic growth was above 7%, a situation that had not been seen in decades. The momentum of this growth spread to several sectors such as industry, trade, construction and transportation. Starting in early 2006, several risks became apparent, which suggested that it would be appropriate to restrict the stance of the monetary policy.

In the first place, the growth of aggregate demand began to surpass the output capacity and thus generated inflationary pressures and possible, unsustainable, long term growth. The deficit in the current account was financed, at that time, by growing capital flows –mainly FDI. However, the sustainability of such flows was doubtful.

Since late 2004, the economic environment that was favorable to fast growth and inflation reduction was accompanied by a progressive appreciation of the peso. The strength of the Colombian economy bolstered confidence among foreign and domestic entrepreneurs, which brought about substantial investments in the country and the return of capitals saved abroad. To the aforementioned factors, the inflow of significant amounts of capital associated with the sale of

public and private assets were added. The appreciation of currencies against the dollar was another phenomenon that affected the majority of the currencies. This was associated to the imbalances in the United States economy and with the excessive liquidity in its markets.

The momentum in the loan portfolio of credit establishments also accelerated and reached annual increases of approximately three times the growth of the nominal GDP in late 2006. The consumption portfolio grew at rates close to 50%.

The surge in the international commodity prices between 2006 and mid 2008 was another fact that increased inflation and inflation expectations. The reduction in household purchasing power due to the rise in food and fuel prices was a factor that affected economic growth.

This is why, between April 2006 and July 2008, the position of the monetary policy was geared towards restraining inflationary pressures, anchoring inflation expectations and reducing macroeconomic risks. During this period, the following monetary measures stand out.

- Between April, 2006 and July, 2008, a new period of upswings in the policy interest rates began as they went from 6.0% to 10.0%.
- Measures were implemented to slow down credit growth, which consisted of establishing a non-remunerated marginal reserve requirement on deposits taken as of May, 2007. This was replaced by the ordinary reserve requirement. The marginal reserve was discontinued in September, 2008. The average ordinary reserve requirement was reduced by 1pp in October.
- To strengthen the country's international liquidity position and slowdown the pace of appreciation, it was decided to continue the discretionary purchases of foreign currency, which had been started in September, 2004. Thus, US\$11,707.8 m was purchased between this date and April, 2007, when this mechanism was no longer used, and thus international reserves doubled. Between June and October, 2008 daily auctions were held for US\$20 m, and US\$1,415.8 m was purchased.
- During the second quarter of 2007, a set of measures was adopted to discourage capital inflows and short term debts. Deposit requirements were reestablished for short-term foreign borrowing, which also included: advance payments on exports and pre-financing for them, as well as import financing. As will be explained in detail, a limit was also imposed on the leveraged positions for brokers' derivative market transactions, in order to reduce exposure to sudden movements in the exchange rates.



In spite of the measures that were taken and like most countries, inflation held to its upward movement that started in mid 2006 and ended in 2007 at 5.7%, above the inflation target range established for that year (between 3.5% and 4.5%). The combination of demand pressures associated with the high growth registered in 2007, the lower food supply caused by climatic factors, the strong growth of Venezuela's demand for our products, and the increase in international commodity prices (oil, wheat, soy beans, etc.) were the main reasons for the rise in inflation and the failure to meet the target.

The steep increase in international prices for commodities continued. It was only as of the second half of 2008, and more emphatically the last quarter, that this tendency began to revert. This affected not only the inflation of food and regulated products but also agents' expectations. These were the facts that explained the failure to meet the inflation target for 2008 (between 3.5% and 4.5%).

Since September 2008, some events took place in the domestic and international economy that caused a change of direction in the monetary policy stance. During that period, the BDBR's decisions were shaped by a macroeconomic scenario that can be described as follows:

- A high inflation that ended above the target range in 2008 and a few indicators of core inflation that, in some cases, have given no sign of subsiding. Since November, the expectations for inflation at various terms declined, but they still remain at levels above 5.0%. According to the projections there is a high probability that a significant slowdown will take place over the course of 2009.
- A more adverse external sector for both the demand for our exports and access to foreign loans. International trade, the main growth engine of the current decade, is contracting at a fast pace.
- Signs of economic slowdown in several developing countries together with loss in the value of their currencies against the dollar. Moreover, the decline in commodity prices has also lowered our trading partners' income.
- Domestic economic activity that continues to slow down, which will lead the growth of the output to settle at levels below the long-term rates. The weakness in domestic demand, especially consumption, could become accentuated if conditions abroad keep affecting the disposable income in the economy or if the labor market is hurt.
- A local financial market that so far has shown good performance. Credit, even though is slowing down, keeps growing at a good pace with portfolio risks at acceptable levels. The consumption portfolio has shown the greatest slowdown.

With respect to this macroeconomic scenario, in September, 2008, the BDBR decided to drop the controls on the entry of short term capital and removed the deposit requirement on borrowing abroad. Furthermore, in October, they reduced the percentage of the reserve requirement that banks must have on their deposits and increased the supply of liquidity for the end of the year. In November, they set the 2009 inflation target in a range between 4.5% and 5.5%, with 5.0% as the specific target for legal purposes. Likewise, they established 4.0% as the midpoint of the inflation target range for 2010. Also at each one of the December, 2008 and January, 2009 meetings, the intervention interest rate was reduced by 50 bp. At those held in February and March, 2009, it was reduced by 100 bp. Thus, the overnight repo expansion rate stood at 7.0%.

In conclusion, although the above measures do not make Colombia immune to the crisis in the world economy, they do improve its situation to address it. First of all, to the extent to which inflation projections are oriented towards the targets and the economy is able to let its currency float, the conditions are suitable to put into operation a counter-cyclical monetary policy that will stimulate growth. There is also a sound, regulated financial system with enough funds, and in general, plenty of strengths that will allow it to continue providing loans. Additionally, sufficient international reserves have been accumulated to face the adverse shocks from the crisis.

### C. THE ADVANTAGES OF A FLOATING EXCHANGE RATE IN STABILIZING THE PRODUCT

A floating exchange rate system offers the possibility of adopting a counter-cyclical monetary policy and helps to avoid financial crises.

First of all, it is useful to remember that the potential of a floating exchange rate depends on the inflationary history and on the economic characteristics of each country. A floating exchange rate is less advisable in economies with a long history of monetary instability, a monetary policy that lacks credibility, high liabilities in foreign currency and a significant share of the product tied up to international trade.

Several examples of this can be found in the '80s and early '90s: countries that made poor use of monetary policy, generated large macroeconomic imbalances and were forced to adopt a fixed exchange rate system.<sup>30</sup>

A flexible exchange rate regime allows the central bank to control the amount of money in the economy and the interest rate. That is why it is said that this system is consistent with the strategy of inflation targeting, in which the central bank controls the inflationary pressures caused by demand or

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30 Argentina (1991), Brazil (1986), Peru (1985) and Ecuador (1984).

expectations by modifying the interest rate. Within this framework, the central bank can intervene in the foreign exchange market as long as this intervention is consistent with the stance of monetary policy and is not a threat to meet the inflation target.

Thus, since 1999, Colombia has operated under a floating regime in which, based on the conditions of the market, the exchange rate floats or the central bank intervenes without trying to affect its trend. The intervention is done following established rules to prevent excessive volatility in the exchange rate and to accumulate or free up reserves.

Some of the advantages a flexible exchange rate has as a currency exchange system, in periods in which the objective is to ease economic growth and direct it to its long term levels, are the following:

When an economy faces a real shock, a flexible exchange rate helps to minimize the impact on output. For example, the adverse effects on the GDP which occur due to a fall in the terms of trade<sup>31</sup> are attenuated by the depreciation that is generated, as it improves exporter income and increases competitiveness.

Exchange rate flexibility allows the central bank more control over the domestic interest rate, a fact that is favorable when there is a large number of agents with local currency loans. In contrast, when an exchange rate is defended in times of crisis, this could mean large sales of dollars, falls in the monetary aggregates, reductions in credit supply and, therefore, rises in the domestic interest rate. All of these events could intensify the crisis.

When economies with strong rigidities face adverse external shocks, the exchange rate is the adjusted variable to make it possible to reach a better macroeconomic balance. In contrast, with a fixed exchange rate, and given the loss of control over the interest rate, the adjustment would fall more heavily on fiscal policy, thus increasing the risk of insolvency for the State.

In summary, a floating exchange rate regime under a inflation targeting regime allows Colombia to better face the current recessionary situation that is affecting the global economy. As was explained, defending an exchange rate can lead to macroeconomic imbalances when there are different types of external shocks. Nonetheless, it is important to note that the fiscal policy measures that are taken also play an important role in facing the foreign crisis.

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31 For example, an international reduction in the price of coffee. Other real shocks are: a technological change or variations in relative prices that affect national prices.

## D. FISCAL POLICY

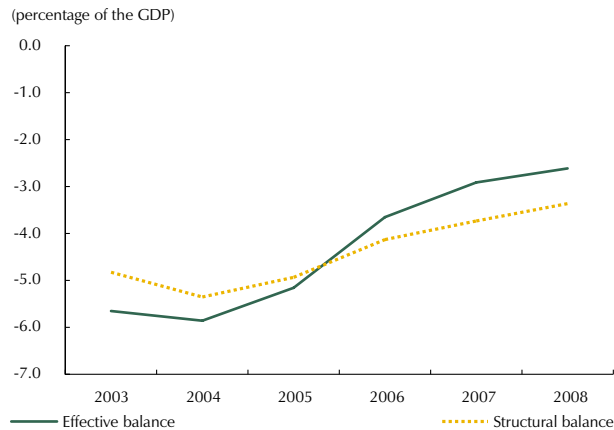
Since the pronounced fiscal deterioration observed in the second half of the nineties, especially due to the increase in public expenditure, Colombian public sector finances have been going through a process of gradual adjustment. Between 2002 and 2008, the consolidated fiscal deficit fell from 3.2% to 0.9% of the GDP and gross debt declined from 56% to 40% of the GDP. From a sectoral point of view, the generation of surpluses by the decentralized sector and the reduction of the central administration deficit stand out. The reforms made to increase tax collection and avoid an overwhelming growth in public expenditures, as well as the better domestic and foreign economic conditions explain these results.

In terms of legislation, since 2000 four tax reforms have been approved. These adjusted mainly the income tax, VAT and wealth tax, redefined the incentive plan to encourage private investment and strengthened mechanisms to combat tax evasion. On the expenditure side, Act 617 was approved in 2000 to restrain the operating expenditures of territorial authorities, and in 2001 and 2007, the system for making transfers to the regions was revised to minimize its impact on national finances and to create better conditions for design budgets at the local level. Likewise, in the reform of the pension system in 1999, the Fondo de Pensiones para los Territorios Nacionales (Fonpet, Pension Fund for the Territories) was created and in 2003 and 2005, the general pension regime was reformed. The tax benefits will be clearly seen starting in 2011. These measures were supplemented by a policy of public debt management aimed at reducing exchange rate risk and liquidity problems, by replacing foreign liabilities with domestic ones and improving the maturity profiles.

The expansion of output and the appreciation during the 2003-2007 period explain a large part of the reduction in the ratio of public debt. In 2004, for example, national government debt fell 4.5 GDP points, of which 3.6 points (80%) resulted from these two factors. The macro context and the reforms described above helped to reduce the fiscal imbalance. Between 2002 and 2008, the tax burden rose 2.5 GDP points. During the same period, the significant increase in international oil prices generated additional revenues of close to 1% of the GDP for the central government. Taking into account the resources transferred by the Fondo de Ahorro y Estabilización Petrolera (FAEP, Savings and Oil Stabilization Fund), the aforementioned revenues increased to 1.5 % of the GDP for the last year. The royalties for oil drilling received by the territorial authorities grew to 0.5% of the GDP for these years.

Although important advances were achieved on the fiscal front, the Colombian economy has not yet reached a solid position in this area like that achieved by other countries in the region. The figures indicate that the central administration deficit is still substantial (about 3% of the GDP) and debt service demands

Graph 14  
National government effective and structural balance



Sources: Ministry of the Treasury and of Public Credit; calculations by Banco de la República.

about a quarter of the national budget. Unfortunately, the increased tax revenue obtained in the expansion phase did not translate into greater public savings. The fiscal imbalance increases when the positive effect of the high point of output is discounted. Graph 14 shows that the cyclically adjusted deficit (or structural deficit) of the national government has fluctuated between 4% and 5% of the GDP in the last three years, which gives a better idea of the size of the imbalance.

The situation described above confirms that the Colombian government has a narrow fiscal margin in which to adequately compensate for the effects of the international crisis with expansionary programs.

Unlike Colombia, other countries in the region such as Chile and Peru, whose fiscal policies have been guided by structural fiscal rules in recent years, have generated significant savings during the good times which gives them a stronger position from which to carry out a counter-cyclical policy. In 2008, for example, the central governments of Chile and Peru registered primary surpluses of 7% and 4% of the GDP respectively while Colombia registered a surplus of only 0.9%. Considering that the expansionary fiscal stance with discretionary expenditure packages, just as is being recommended internationally, must be carefully evaluated in Colombia in light of the shock plan recently announced by the government. Under certain circumstances this type of plan could be of little effect and even counterproductive in the medium and long term if several aspects are not taken into account.

First of all, the multipliers of public expenditures on economic activity must be known. These will vary depending on the type of program. In fact, according to studies by the IMF, it takes between one and three years to see the full effects.<sup>32</sup> Due to the nature of the crisis (liquidity and confidence), investment in infrastructure with a minimum of imported items and high social return that will quickly and effectively stimulate employment and aggregate demand is recommended. Widespread tax cuts are not recommended because they are not likely to result in increased consumption due to the cautious position families adopt in view of the crisis (greater saving). It should be pointed out that outlays on infrastructure are not completely transitory since it is necessary to budget resources to maintain them in the future. Moreover, it is essential to be able to count on a proper execution of the works, so that the projects turn out to be appropriate. Efficient management seems to be a bottleneck in most of the economies in the region.

32 Spilimbergo, Antonio; Symansky, Steve; Blanchard, Olivier; Cottarelli, Carlo. "Fiscal Policy for the Crisis," Staff Position Note, spn/08/01, December 29, 2008.

The second aspect is related to the tax plan financing system especially when governments have no savings and the countries have a high degree of openness. For open economies with perfect capital mobility and flexible exchange rate regimes, if the shock plans are funded primarily by foreign resources, the local currency tends to appreciate and the current account deteriorates. These events end up pushing up interest rates which could annul the expansionary fiscal effect. Since the industrialized countries' financial rescue plans will demand significant resources from international loan markets, emerging economies will have greater difficulty getting access and increased funding costs.

Finally, it is important that the country take into account the perception of markets on the midterm fiscal sustainability, so that the shock plans do not affect the local credit market and the interest rates. International evidence indicates that the country risk rating is related to the size of public debt, and that this relationship gains importance when the debt level exceeds certain thresholds. With the deceleration that is already perceived in the Colombian economy and the obvious depreciation of the peso, the debt ratio to GDP could deteriorate rapidly in spite of the better indebtedness profile for each currency. If a large issue of securities to fund the shock plan is added to this unfavorable environment, the debt could increase over the medium term to unmanageable levels.

## E. CAPITAL CONTROLS 2007-2008

In May, 2007, the BRBD decided to re-establish the same type of controls on incoming capital as had been used between 1993 and 2000, complementing them this time with measures designed to reduce the risk of exposure that some banks had in the derivatives market. The reasons that brought about this decision were the heavy inflow of capital and the significant appreciation of the peso under conditions of a broad differential in the interest rates, as well as the need to limit the financial system's exposure to currency exchange operations. With several modifications, some of the controls remained in effect until September, 2008 when, as a result of the international financial crisis, capital outflows began to appear. With this, the appreciation pressures on the Colombian peso eased.

The control plan that was initially imposed consisted of a mandatory, six-month, non-remunerated deposit requirement in legal currency that was equivalent to 40% of the value of the foreign debt disbursements other than pre-financing of exports. In addition, there was a mandatory, 12-month, non-remunerated deposit in legal currency that was equivalent to 11% in cases of channeling loans in foreign currency to pre-finance exports. Likewise, a leveraging limit of 500% of the technical equity of financial brokers was established for operations in the derivatives market in order to limit counterparty risks. Finally, in the case of foreign capital portfolio investments, a mandatory, non-remunerated deposit requirement in legal currency, equivalent to 40% of the value of the new investments was established. In this case, the deposit was

permitted in foreign currency in December, 2007 and the percentage remained at 40%. Moreover, on the same date, penalties in cases of early withdrawal of both deposits in pesos and in dollars were reduced.<sup>33</sup>

In May, 2008, in view of the worsening of foreign exchange appreciation, the Bank raised the leveraging limit for financial brokers for operations in the derivatives market from 500% to 550%. At the same time, the controls were adjusted so that the deposit for portfolio investment rose from 40% to 50% and the requirement for a 2-year minimum stay on FDI capital was imposed. Later the discount for early withdrawal of deposits in the Banco de la República was raised in June.

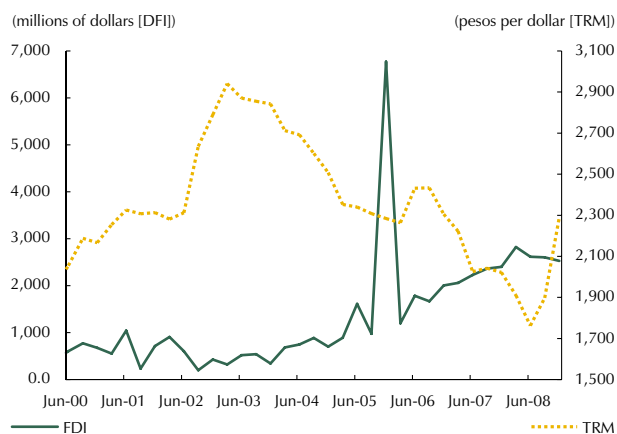
In view of the rapid change in the international context, the norm regarding the minimum stay requirement for FDI was revoked and flows to purchase stocks were exempted from the mandatory deposit requirement. The subsequent nominal depreciation of the Colombian peso caused the monetary authority to eliminate capital controls in October and keep only the leveraging ceiling on financial brokers to keep the exposure risk under control during this turbulent financial time.

To understand the rationale behind these recent changes in controls and to evaluate their usefulness and effectiveness, it is important to discuss the economic context that led to this decision and how capital inflows changed after the controls were imposed.

In the second half of 2006, after the turbulence in the international markets, the Colombian peso appreciated sharply. This phenomenon was, in turn, caused by the rise in the interest rate differential, which was a product of the tightening monetary policy that had been exercised by the Banco de la República since

April of the same year. Although the FDI showed strong momentum during this period (Graph 15), flows other than FDI remained relatively stable. It was only as of the beginning of 2007 that these began to take on importance. The majority of 2007 was characterized as a period of strong appreciation pressures as a result of massive capital inflows associated with FDI on the part of the oil and mining sectors and those resulting from payments due to company purchases, resources that by themselves, were considerably large. Under this scenario, the Bank intervened in the currency exchange market without abandoning the inflation targeting plan which was adopted in 1999. Within this framework, achieving the inflation target was their main goal

Graph 15  
FDI flows and nominal exchange rate



Source: Banco de la República.

and, therefore, in view of the future inflationary risks, the BDBR continued raising the policy interest rate.

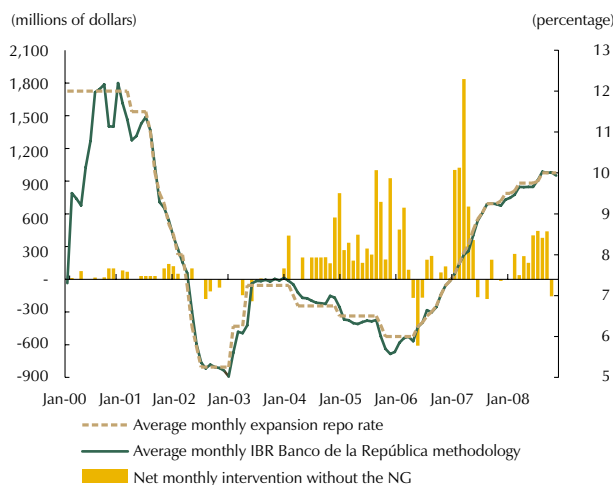
The higher appreciation in the second half of 2006 was the motivating force for the inflows of other foreign capital resources such as loan portfolios. This accentuated the appreciation of the peso in the first few months of 2007. Specifically, the Colombian peso appreciated 3.5% on average between January and April, 2007 compared to the same period of the previous year and 6.6% for the complete year.

Under these circumstances, and in order to reduce the volatility that was beginning to appear in the exchange rate and lessen the pressure towards a stronger appreciation, Banco de la República decided to intervene massively in the foreign exchange market. Therefore, between January and April, 2007, the Bank made US\$4,725 m in net purchases of foreign currency, an amount that is similar to the entire intervention for 2005 and four times that of 2006. Most of these purchases were made through discretionary intervention mechanism. The amount for this was announced at the end of two weeks following the guidelines established by the BDBR.

This intervention in the foreign exchange rate did not succeed in halting the appreciation trend in spite of the high volume of dollar purchases in the first few months of 2007. At the end of May, 2007, the nominal exchange rate had appreciated 5.2% compared to its value at the end of 2006. As

has been discussed in previous Reports,<sup>34</sup> some authors such as Kamil (2000) have argued that this lack of effectiveness was mainly due to the loss of coherence between the monetary policy and foreign exchange policy since, in view of the higher inflationary pressures, Banco de la República found it necessary to raise the interest rate at the same time as they intervened in the currency exchange market (Graph 16). However, Echavarría, Vasquez and Villamizar (2008)<sup>35</sup> show that there were no changes in the coefficients that measured the influence of the intervention on the exchange rate. That suggests that the channel of monetary expectations did not have very strong contradictions and that other channels, i.e., that of loan portfolios or of signs of speculative bubbles in the exchange rate, filled an important role. These channels do not depend on the

Graph 16  
Net monthly investment, repo rate and expansion rate and IBR



Source: Banco de la República.

34 Board of Directors' Report to the Congress of the Republic, Banco de la República, July 2007.

35 Echavarría, J. J.; Vasquez, D.; Villamizar, M. "El impacto del riesgo país, los controles de capital y las intervenciones del banco central sobre la tasa de cambio," internal document, Banco de la República, 2008.



macroeconomic contradiction that Kamil points out. This, together with the expectation that the monetary authority would continue this adjustment policy, broadened the present and future differential between the domestic and foreign interest rates. This made it very attractive to bring capital into the country, particularly portfolio investments, at the same time as it took credibility away from the possibility of success in the exchange rate intervention.

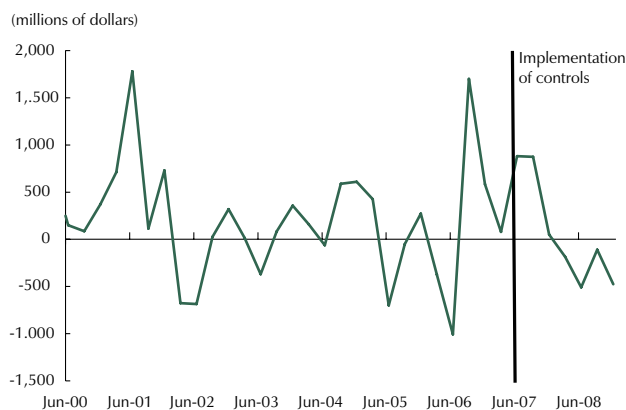
In view of the evidence that the massive intervention made it increasingly more difficult to keep the growth of the monetary aggregate under control –and with that, manage the interest rates– and given its lack of effectiveness in stopping the appreciation process, Banco de la República decided to discontinue the discretionary intervention in May, 2007. However, in order to discourage the inflow of speculative capital, the BDBR, in coordination with the national government, decided to resort to the capital controls described above as a mechanism to restrain the heavy inflow of capital from abroad and limit the *carry* trade operations.

### Effectiveness of Capital Controls

Empirical evidence in connection with capital controls has shown varied results for emerging countries. In order to appraise this evidence in the case of Colombia using one single focus, the effectiveness of capital controls could be defined as their ability to: i) limit capital flows, ii) change the composition of those flows from short term to long term, iii) alleviate appreciation pressures on exchange rate and iv) provide monetary policy with greater independence by means of a weakening of the relationship between the domestic and foreign interest rates.

Some evidence can be found in information on the balance of payments about the limitations that controls may have imposed on capital flows. The figures for portfolio investment –which is the investment that enters the country in search of very short term profitability– show that this diminished with the imposition of controls in May, 2007 and went from US\$881 m in the second quarter of that year to US\$109 m in the third quarter of 2008 (Graph 17).

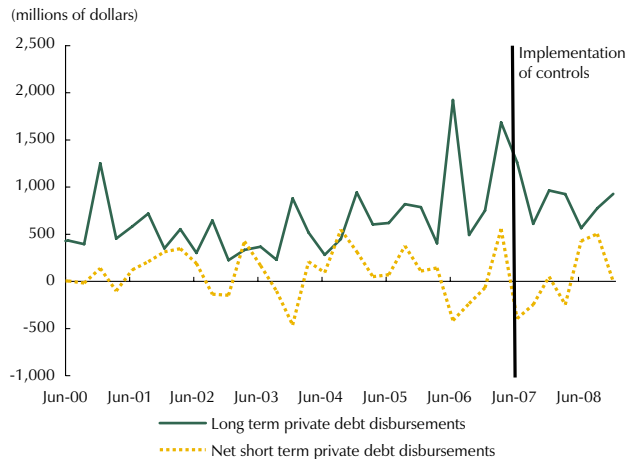
Graph 17  
Loan portfolio investment <sup>a/</sup>



a/ Foreign short term investments in Colombia.  
Source: Banco de la República.

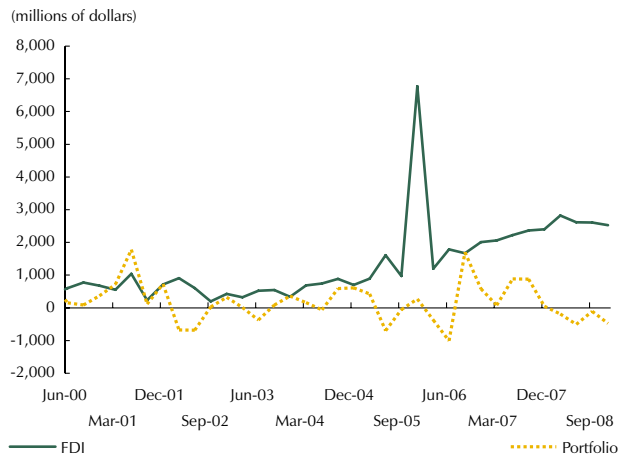
Short and long term private indebtedness, which peaked in the second quarter of 2007, showed evidence of slowing down since the imposition of controls. As can be seen in Graph 18, the expenditures on long term debt went from US\$1,760 m to a level of US\$787 m towards the third quarter of 2008. The same momentum is noticeable in the net short term debt although, in this case, they took up a positive trend again at the end of 2008. To date,

Graph 18  
Private foreign debt: long term disbursements and net short term debt



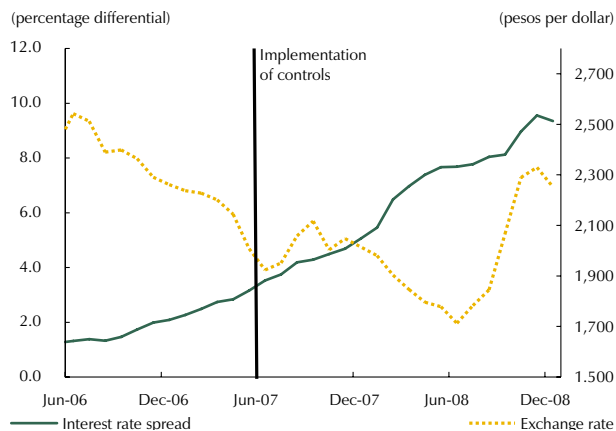
Source: Banco de la República.

Graph 19  
Foreign direct and portfolio investment in Colombia



Source: Banco de la República.

Graph 20  
Interest rate spread and exchange rate



Source: Banco de la República.

the composition of the balance of the country's foreign debt is 87% long term and 13% short term.

Analyzing FDI, evidence of a shift in the composition of investment flows, which was another of the objectives of capital controls, is also found. FDI maintained its growth trend after controls were imposed and reached US\$2,614 m in mid-2008 (Graph 19). In contrast, as has already been said, foreign investment directed towards loan portfolios showed a collapse with the imposition of controls.

On the foreign exchange front, as has been mentioned, Banco de la República faced a contradiction between the tightened monetary policy that had been in place since April, 2006 and the intervention efforts made to prevent more pressure towards appreciation. With respect to this, the increases in the interest rate differential stopped having the same appreciating impact on the exchange rate for approximately a quarter after the controls were imposed as is shown in Graph 20. Therefore, the measures seem to have been effective, at least for a time, in achieving greater monetary autonomy under the inflation targeting plan.

However, as Graph 20 also shows, the exchange rate went back to its appreciation trend at the end of 2007 and reached 16% between the point controls were imposed and July, 2008. This phenomenon was mainly due to the heavy and continuing flow of FDI and to the global weakness of the dollar.

Although this type of descriptive analysis is useful for broadly illustrating the effects of the controls, the comparisons between periods on the graph leave out changes in factors that are determining in the performance of capital flows and the exchange rate. For example, the period after the adoption of the controls corresponded to a halt in interventions in the foreign exchange market by Banco de la República, more monetary tightening and a resulting broadening of rate differentials as well as an increase in the volatility of the exchange rate. That is why a more precise evaluation of the effectiveness of the capital controls requires using econometric methodologies that are capable of

incorporating other forces that, at a given moment, act simultaneously on the exchange rate and capital flows.

With respect to this, several recent studies have tried to evaluate the effectiveness of the capital controls established in May, 2007 using econometric estimate models. In one case, Cardenas (2007)<sup>36</sup> examined the effects of the regulation on year-long net flows of private capital with monthly data for an estimation period between January, 2000 and September, 2007 by using ordinary least squares (OLS). In this exercise, uncovered interest rate parity was used as the explanatory variable of the private capital flows and imports of capital goods (as a proxy for the country's investment level) as the control variable. The author found that the effect of the controls, apart from the interest differential, on the behavior of the capital flows was not significant. According to the estimate, what really explained the inflows of capital was the interest differential, imports of capital goods and a dummy for the March-May, 2007 period. However, since this estimate used only data for a capital flow with a maturity of more than one year, it ignored the effect of measures such as the reserve requirements on short term capital flows.

In another study, Concha and Galindo (2007)<sup>37</sup> used other types of models (VEC and GARCH) to evaluate the impact of the capital controls on the level of capital flows, the real exchange rate and the volatility of the exchange rate. They found that the effect of the capital controls on the real exchange rate and on the total capital flows was not significant. Nevertheless, upon segregating between short and long term flows, the result obtained was that controls had a more or less significant effect, although small in magnitude, on the short term flows while they did not affect the long term ones. Furthermore, they concluded that capital controls significantly reduced the volatility of the nominal exchange rate.

More recently, Clements and Kamil (2008)<sup>38</sup> evaluated the effect of the 2007 controls on both the net and gross capital flows through the use of weekly data. This allowed them to get a more detailed view of the short term capital flows. The impact of the controls on capital flows and the exchange rate was examined for the July, 2006 to July, 2008 and January, 2007 to July, 2008 periods.

For the first period, the results suggested that capital controls did not have any effect on the total flows of capital other than FDI, even though they were effective in reducing the foreign loan flows. This implies that the restrictions led

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36 Cardenas, M. "Controles de capitales en Colombia: ¿funcionan o no?" *Debate de Coyuntura Económica*, Fedesarrollo, Bogota, December, 2007.

37 Concha, A.; Galindo, A. "Controles de capitales en Colombia: ¿funcionan o no?" *Debate de Coyuntura Económica*, Fedesarrollo, Bogota, December, 2007.

38 Clements, B.; Kamil, H. "Are Capital Controls Effective in the 21st Century? The Recent Experience of Colombia," Selected Issues Paper, International Monetary Fund, December, 2008.

to a weekly decline in the gross foreign loan portfolio of approximately of close to US\$42 m. On the other hand, the authors did not find evidence of the controls having any impact on the levels of the exchange rate nor on their sensitivity to global developments.

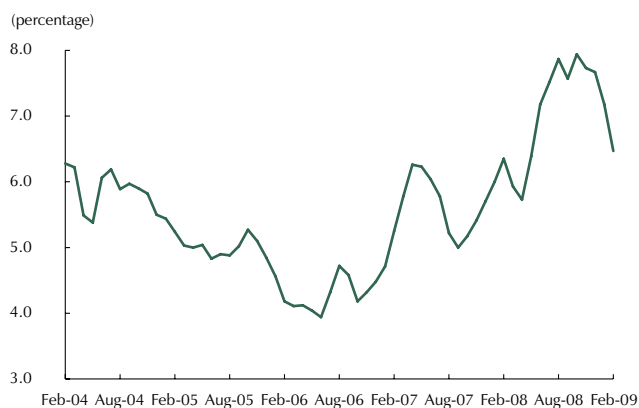
Between January, 2007 and July, 2008, the results yielded conclusions that are consistent with the first estimated period. But there are two main differences: the first is the finding that capital controls had a positive effect on the autonomy of the monetary policy. The controls allowed the monetary authority to increase the interest rate differential without generating higher appreciation pressures on the exchange rate. The second difference is that the controls caused an increase in exchange rate sensitivity to other factors, especially changes in commodity prices. The authors argued that this result was explained by the fact that commodities may be considered an approximation of the appreciation expectations during that period.

In conclusion, the examination of the graphs in the series and the results of econometric estimates offers mixed evidence regarding the effectiveness of controls. In general, it has been observed that controls do succeed in having some effect on reducing short term flows. There is also evidence that controls have some ability to induce a change in the composition of flows to longer term capital. To the degree to which controls reduce the vulnerability of the economy to drastic changes in conditions abroad such as sudden stops in capital flows, this could be seen as an advantage. Finally, some studies found positive evidence with respect to the capacity of capital controls to achieve some isolation of the economy, and thus grant monetary policy a greater degree of autonomy.

### III. THE COLOMBIAN ECONOMY IN 2008 AND OUTLOOK

*Consumer inflation, which ended 2008 over the ceiling of the target range, was mainly explained by foreign shocks, such as the rise in oil and food prices that were passed through to domestic prices and generated second round effects, which caused upward pressures to the different measurements of core inflation. This occurred despite the weakening of aggregate demand, especially of household consumption. In 2009 it is expected that inflation will be within the target range and that economic growth will be lower than in 2008, but still positive.*

Graph 21  
Total annual consumer inflation



Sources: DANE; Banco de la República calculations.

#### A. INFLATION

##### 1. Inflation in 2008

In 2008, annual consumer inflation jumped significantly for the second consecutive year and overshot the top of the target range established by the BDBR (3.4%-4.5%). As of December, it had reached 7.67%, almost 200 bp more than what had been seen in December, 2007. Inflationary pressures were more pronounced in the first half of the year while, in the second half, inflation tended to stabilize at a high level (Graph 21).

The above performance occurred in a context of both domestic and foreign shocks. The main one was that related to the upswing in the international prices of oil, other commodities and food during the first part of the year. This situation was not exclusive to Colombia and occurred in the majority of developed and emerging countries. It led, in almost all cases, to substantial

rises in inflation until the middle of last year. In Latin American economies the rises continued until the end of the year, and as a result, the targets were missed in the majority of the cases (Table 3).

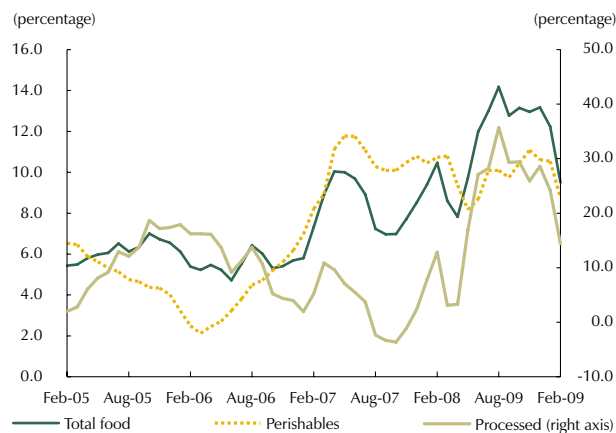
Table 3  
Inflation Targets in Several Economies

Samples of countries	Target range 2008	2006	2007	2008	Food inflation (2008)
Chile	3.0 (+/- 1.0)	2.6	7.8	7.1	<b>14.7</b>
Brazil	4.5 (+/- 2.0)	2.8	4.5	5.9	11.1
Mexico	3.0 (+/- 1.0)	4.1	3.8	6.5	10.2
Colombia	4.0 (+/- 0.5)	4.5	5.7	7.7	13.2
Peru	2.0 (+/- 1.0)	1.1	3.9	6.7	9.7
United States		2.5	4.1	0.1	5.9
Europe	0-2 <sup>a/</sup>	1.9	3.1	1.6	3.2
United Kingdom	2.0	3.0	2.1	3.1	10.4
Canada	(2.0)+/- 1.0	1.7	2.4	1.2	7.3
New Zealand	(2.0)+/- 1.0	3.0	3.2	3.4	9.4
China		2.8	6.5	1.2 <sup>b/</sup>	5.9 <sup>b/</sup>
Russia		9.0	11.9	13.3	16.0
Indonesia		6.6	4.9	11.6	16.4

a/ Europe does not have an inflation targeting system but it does establish an acceptable range for long term inflation.  
b/ data as of November.

Source: Bloomberg and Datastream.

Graph 22  
Annual inflation of food prices

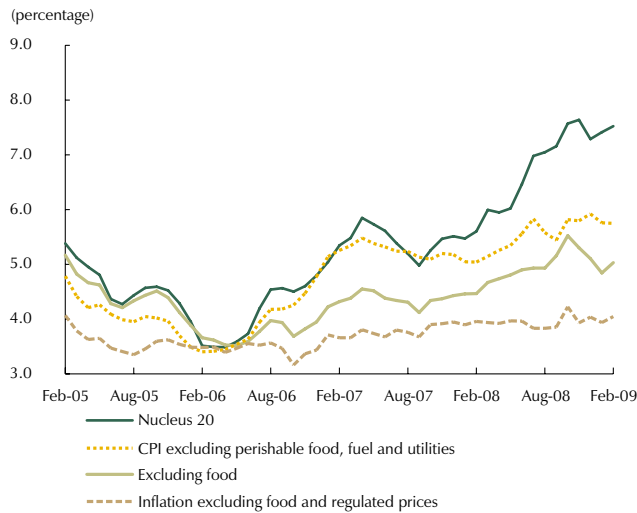


Sources: DANE; Banco de la República calculations.

In Colombia, the majority of the upswing in annual inflation was due to the sharp rises in food prices, a group that had an annual upswing of 13.1%, the highest in the decade (Graph 22), at the end of the year. As in many other countries, the boom in food prices was mainly associated with the jump in international prices for oil and its substitutes, which affected international prices for other agricultural commodities (grain, oil products and sugar, etc.) and transportation and production costs. This effect of this international food price inflation was passed-through in a large extent to Colombia.

The drops in international prices towards the end of the year were not transmitted to the domestic prices for food. This may have been due to the depreciation of the peso during those months. It may also have been a result of the fact that some of them were not totally tradable or that other costs such as transportation remained high. Likewise, the price of non-tradable goods was affected by variables such as climate (the excess of rain). Strikes in the freight transportation and sugar-growing sectors may also have limited the fall in prices, especially in the case of perishable food (Graph 23).

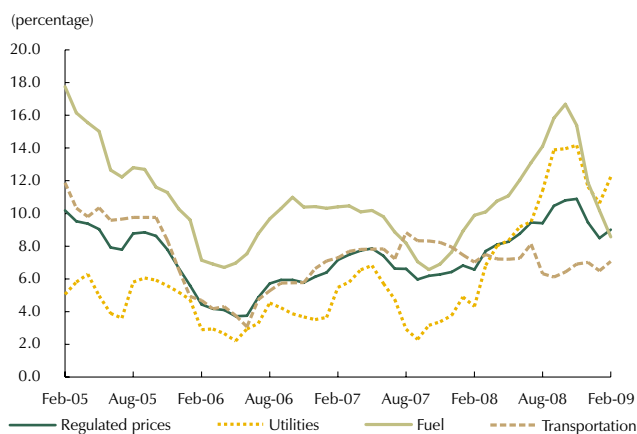
Graph 23  
Indicators of annual core inflation



Sources: DANE; Banco de la República calculations.

The upswing in consumer price inflation in 2008 can also be explained by the performance of other core inflation indicators. Inflation excluding food rose slowly and uninterruptedly over the course of the entire year and declined slightly in November and December. For this last month, the result (5.1%) exceeded the ceiling of the target range, something which had not happened throughout the decade. The other two core inflation indicators (core 20 and CPI excluding agricultural food and regulated goods) showed sharp rises that outstripped inflation excluding food. The average of the three indicators went from 5.0% at the end of 2007 to 6.1% in December, 2008. A fourth indicator, the CPI excluding food and regulated goods remained stable at around 4% (Graph 23).

Graph 24  
Annual inflation of regulated prices and by components



Sources: DANE; Banco de la República calculations.

Within the CPI excluding food, the component that contributed the most to raising inflation in 2008 above the target was regulated goods. This aggregate, which includes prices for utilities, gasoline and public transportation ended the year at 9.4% in comparison to 6.4% in December of the previous year (Graph 24).

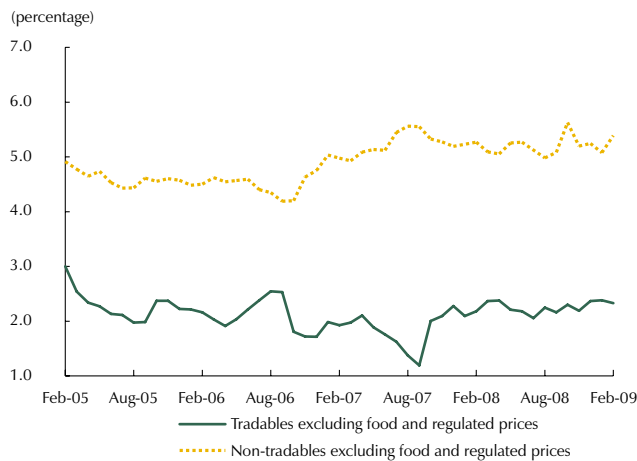
Just as with food, in this case the main upward pressures were the result of the high international prices for oil, which were gradually transmitted to the prices of gasoline, transportation and gas. However, in addition, there were also significant rises in other utilities in response to the upswing in consumer and producer inflation. These were

transmitted to the fees through the activation of the indexation mechanisms included in the regulation formulas.

Towards the end of the year, the annual variation for regulated prices diminished mildly due to the moderation in the upswing in gasoline prices and a small decline in prices of residential natural gas service due to an unwinding of international prices.

The tradable and non-tradable groups excluding food and regulated prices, in turn, ended the year with annual variations similar to those seen at the end of 2007. The annual rises in this last group remained above the target range ceiling throughout the year and fluctuated at around 5.2% in spite of the weakening of demand and the policy actions. The high expectations and persistence of inflation, partly because of the permanence of the indexation mechanisms, are factors that can explain this trend. With respect to the tradables excluding food

Graph 25  
Annual inflation of tradables and non-tradables  
excluding food and regulated prices



Sources: DANE; Banco de la República calculations.

and regulated items, their annual variation swung between 2.0% and 2.5% over the course of the year and did not seem clearly affected by the appreciation of the exchange rate in the first half of the year nor by the depreciation starting in September (Graph 25).

Even if neither group contributed to accelerating inflation, they did not make it possible to adjust the increases in relative prices for food and regulated goods caused by the exogenous shocks either. In a context with greater downward price flexibility, lower inflation expectations and long term targets with greater credibility, it would have been possible to see a decline in the annual variations of tradables and/or non-tradables excluding food and regulated items.

## 2. Inflation Outlook in 2009

The year 2009 began with a significant reduction in annual consumer inflation. In January the figure was 7.2% and in February, 6.5% (Graph 21). The drop occurred mainly because of the smaller adjustments in food and regulated prices. In the later case, the stabilization of gasoline prices has helped slightly. The indicator for non-tradables excluding food and regulated items, which had shown a slight decline in January, accelerated again in February and ended at 5.4%, while the annual change in the CPI for tradables excluding food and regulated prices remained relatively stable at the low levels seen at the end of 2008 (Graph 25).

The foreign and domestic conditions favor an additional decline in consumer inflation for the rest of 2009. The sharp fall that international prices for energy and commodities have exhibited in the last six months eliminated one of the main causes of inflationary pressure in the recent past. Moreover, the substantial slowdown in world demand, which will probably continue throughout 2009, will also make it possible to forecast a fall in the prices of manufactured and capital goods imported by Colombia. These lower pressures will tend to transfer to domestic prices over the course of the year, and thus contribute as a decisive component to the reduction in domestic inflation.

The main effect of lower international prices should be felt to a greater degree on the prices of imported good, or those that depend on imported raw materials, and those in the tradables group excluding food and regulated prices. However, substantial help in the prices of regulated goods is also expected, particularly in gasoline and residential gas service, for which significant upswings are not anticipated for the rest of the year, in contrast to what happened last year. One exception would be the price of energy, which could continue to show increases.



The lower momentum of expenditure expected for 2009 should also discourage excessive price rises, especially those that are most sensitive to demand (such as tradables). Nevertheless, prices for food and tradables could also be affected just as they were towards the end of the '90s.

An indicator of the demand pressures is the degree to which the installed capacity is used. This has been diminishing since the middle of last year in sectors such as industry, not only due to a lower momentum of expenditure, but also to a productive capacity that was significantly expanded thanks to the intense investment effort made in the last few years. The Bank's technical staff believes that productive capacity excesses have expanded recently for the economy as a whole at levels that have not been seen since 2004, and that it is very probable that this situation will continue over the course of the present year.

In addition to imported food, agricultural food could also contribute to reducing inflation in 2009 as a result of domestic causes. Their relative prices rose substantially in 2007 and 2008 and this could contribute to stimulating the supply in 2009, especially if, as is to be hoped, the costs of agricultural supplies and transportation do not increase significantly.

All of the above allows us to expect that there will be a rapid decline in annual inflation in 2009 particularly in the first two quarters of the year. Bank models indicate that inflation should be within the target range established by the BDBR (between 4.5% and 5.5%) by mid-year and it is highly probable that it will stay within that interval until December. Along with a reduction in inflation, a rapid decline in expectations can also be expected.

There are some risks that could delay a downswing in consumer inflation. The first one would be a depreciation in the exchange rate that puts it at levels well above those seen in December and January. A phenomenon like this could partially curb the transmission of the falls in international prices to domestic prices.

Secondly, even though inflation expectations had diminished as of February, some indicators have stayed at levels that are above the mid-point of the target range announced by the BDBR.

Another is that the increase authorized for the minimum salary (7.7%) was significantly greater than the inflation target. This could put pressure on costs at the beginning of the year.

A fourth risk comes from the readjustments that may be seen in the prices of electrical energy given the increase in production costs associated with the larger share that thermal energy is gaining in comparison to hydraulic power. Even though this service has a weight of only 3% of the basket, the readjustments could be greater than those seen in 2008 (18.4%).

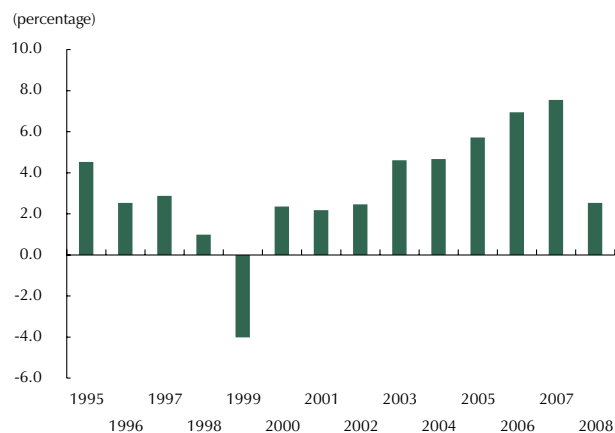
The production of agricultural food may be reduced due to the “La Niña” phenomenon and the heavy rains that usually accompany it.

Finally, as of this year, the Departamento Nacional de Estadísticas (DANE, National Office of Statistics) broadened the CPI basket and updated the weighting assigned to the different items. Although there were some significant changes, such as a drop in the weighting of food and health services, as well as an increase in that of utilities, it is not expected that this will lead to serious modifications in inflation performance in 2009.

## B. ECONOMIC ACTIVITY

### 1. Economic Activity in 2008

Graph 26  
Real annual growth of the GDP



Sources: DANE; Banco de la República calculations.

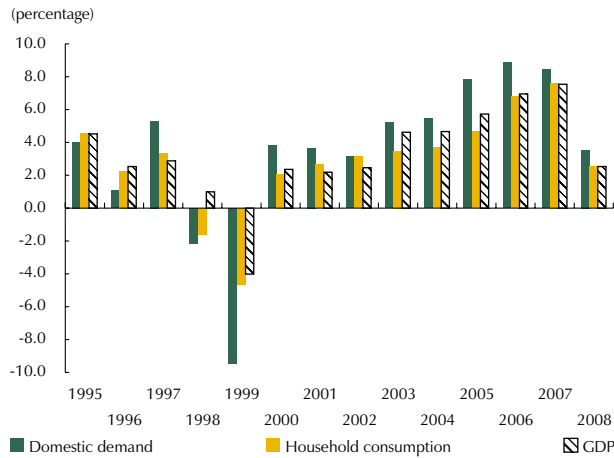
After six consecutive years of accelerating annual growth of economic activity, the annual expansion of the GDP in 2008 was 2.5%. This figure was 5 pp lower than that registered a year ago and lower than what was predicted in the previous report to Congress (Graph 26). This slowdown in growth was caused by several factors among which are found: i) the sharpening of the international financial crisis, especially towards the end of the year, which had a negative effect on consumer and business confidence and on national income, due to the drop in prices for exported commodities, together with a weakening of remittances; ii) the weakening of the aggregate demand associated with a rise in interest rates and with a drastic fall in exports of vehicles to Venezuela; iii) a rise in inflation beyond what was

projected. This hammered both household purchasing power, which affected consumption, and production costs, which had a negative impact on aggregate supply; iv) the reduction in investment and public expenditures at the local level, a phenomenon that also reduced the momentum of domestic demand; and v) particularly in the second half of the year, there were several strikes that were difficult to anticipate and that also reduced growth, even though only temporarily.

#### a. Domestic Demand

In 2008, the real annual growth of domestic demand was 3.5%, a significant slowdown compared to 2007 when it grew 8.5%. Nevertheless, this variable maintained an expansion pace that was higher than that of the total GDP (Graph 27). Likewise, if public sector demand (public consumption and investment in civil works as an approximation of public investment) is excluded, the expansion of the rest of domestic demand was 4.8% over the entire year and

Graph 27  
Real annual growth of the GDP, of domestic demand and household consumption



Sources: DANE; Banco de la República calculations.

5.7% in the first three quarters. This suggests that private demand, which is more directly affected by monetary policy, underwent a slight slowdown before the major effects of the foreign crisis were felt.

Household consumption was the aggregate that showed the greatest slowdown in the year. This dynamic was associated with the deterioration in consumer confidence, a phenomenon observed throughout the entire world, and with the upswing in food and fuel prices which negatively affected families' disposable income. The slowdown in consumption was also partly due to the rise in interest rates, which made access to credit more expensive and lowered the availability of resources to households. The above facts explain why the consumption of durable goods was the most affected and as they from growing 12.9% in 2007 to -3.9% in 2008 (Table 4).

Table 4  
Real Annual Growth of the GDP by Type of Expenditure (percentage)

	2004	2005	2006	2007	2008
<b>Final consumption</b>	<b>3.9</b>	<b>5.1</b>	<b>6.2</b>	<b>6.9</b>	<b>2.3</b>
<b>Households</b>	<b>3.7</b>	<b>4.7</b>	<b>6.8</b>	<b>7.6</b>	<b>2.5</b>
Non-durable goods	3.0	2.7	5.3	6.7	1.5
Semi-durable goods	3.6	5.5	3.5	8.9	2.1
Services	3.2	4.6	6.9	7.0	4.1
Durable goods	14.7	17.2	17.8	12.9	(3.9)
<b>Government</b>	<b>4.6</b>	<b>6.4</b>	<b>4.2</b>	<b>4.5</b>	<b>1.3</b>
<b>Gross capital formation</b>	<b>13.0</b>	<b>19.9</b>	<b>19.1</b>	<b>13.7</b>	<b>7.7</b>
Gross fixed capital formation	13.7	21.2	17.2	15.2	3.6
Civil works	0.8	20.7	16.7	21.5	(7.1)
<b>Domestic demand</b>	<b>5.5</b>	<b>7.8</b>	<b>8.9</b>	<b>8.5</b>	<b>3.5</b>
<b>Total exports</b>	<b>10.0</b>	<b>7.2</b>	<b>8.0</b>	<b>11.4</b>	<b>8.1</b>
<b>Total imports</b>	<b>13.0</b>	<b>17.0</b>	<b>16.2</b>	<b>13.9</b>	<b>10.1</b>
<b>Gross domestic product</b>	<b>4.7</b>	<b>5.7</b>	<b>6.9</b>	<b>7.5</b>	<b>2.5</b>

Source: DANE, Banco de la República calculations.

The quarterly figures show that the peak of annual growth in household consumption occurred in the first quarter of 2007 (9.6%). After that it continued growing at a more moderate, although still high, pace. However, at the beginning of 2008, a significant slowdown began to be seen for this item when it went from growing 6.8% at the end of 2007 to 4.2% in the first

quarter of 2008. This trend became more accentuated over the course of the year and at the end of 2008, the annual growth for household consumption was only 1.7%.

Public sector consumption also showed weakening in 2008 with respect to 2007 since it grew at a rate of 1.3%, which was lower than that of the total GDP. This behavior is related to the change in territorial governments at the beginning of 2008, since they do not normally make full use of the budget during the first year in office as this is a planning year (Table 4).

In the case of investment (gross capital formation–GCF), although the expansion in 2008 (7.7%) was lower than in 2007 (13.7%), it continued to surpass that of the total GDP and that of the domestic demand. The good performance of the total GCF was due to private investment since the public (associated with investment in civil works) fell 7.1% in 2008. Just as with public consumption, this was due to the lag in expenditures of local administrations. It should also be pointed out that private investment in the last quarter of 2008 also contributed negatively to the growth of the GCF. This was especially true in the case of investment for construction and buildings, which shrank by 1.0% (Table 4).

#### ***b. Foreign Demand***

In 2008, the figures show a slowdown in real exports, which went from growing 11.4% in 2007 to 8.1% in 2008, according to DANE publications. This was due primarily to drops in the exported volumes of coffee and coal as well as smaller non-traditional exports (tobacco, non-metallic minerals, textiles and transportation materials) to the United States and Venezuela. Imports, in turn, also slowed down but to a lesser degree than exports (Table 4). Thus, net foreign demand gave a negative support of -1.4 pp to growth and the commercial deficit in pesos rose from 10% in 2007 to 11.1% of the GDP.

The numbers in dollars for the balance of payments yield a result similar to that given by the real figures. Total exports in dollars rose 26%. Of these, the traditional exports rose at an annual rate of 40.8% and the non-traditional at 8.5%. Imports, in turn, went up 20.3% driven particularly by intermediate and capital goods (See E in this chapter).

#### ***c. Growth of Supply***

The downswing in the pace of growth in 2008 was seen in almost all of the sectors, but especially in industry, trade, transportation and construction. It is worth mentioning that these branches represent close to 40% of the GDP (Table 5).

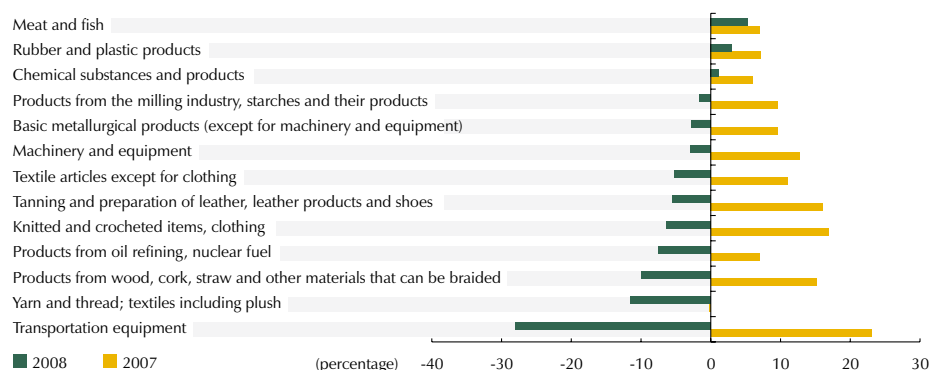
Table 5  
Annual Real Growth of the GDP by Sector  
(percentage)

	2004	2005	2006	2007	2008
Agriculture, forestry, hunting and fishing	1.8	2.4	3.9	3.9	2.7
Mining and quarrying	(0.9)	1.7	3.2	2.9	7.3
Manufacturing industry	5.3	5.4	6.8	9.5	(2.0)
Electricity, gas and water	2.9	3.0	3.1	3.7	1.2
Construction	13.4	12.8	13.5	11.5	2.8
Buildings	32.2	4.7	11.8	1.1	18.7
Civil works	0.9	19.7	14.8	19.1	(7.1)
Commerce, repairs, restaurants and hotels	6.0	7.3	8.7	8.7	1.3
Transportation, storage and communication	5.0	8.7	9.2	11.0	4.0
Financial establishments, insurance, real estate and corporate services	3.9	5.5	6.7	7.3	5.6
Social, community and personal services	3.6	4.6	4.7	4.7	2.1
Subtotal: Aggregate value	4.3	5.5	6.5	7.2	2.5
Taxes minus subsidies	8.9	8.0	11.6	11.5	3.3
<b>GDP</b>	<b>4.7</b>	<b>5.7</b>	<b>6.9</b>	<b>7.5</b>	<b>2.5</b>

Source: Dane; Banco de la República calculations.

The industrial sectors that were the most affected in 2008 were mainly vehicles, oil refining and the textile industry (Graph 28). With respect to construction, its momentum in 2008 was mixed. On one hand, construction of buildings grew 18.7%, a figure that strongly exceeded that of a year previously in spite of the fall in the last quarter. On the other, construction of civil works fell 7.1% in comparison to a jump of 19.1% in 2007 (Table 5). In the case of buildings, the expansion could have been associated to the completion of the work started in 2007 rather than to the execution of larger jobs in 2008. This would explain

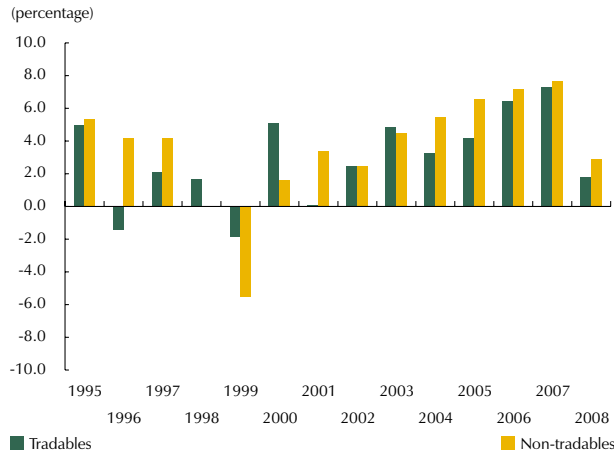
Graph 28  
Main subsectors of the manufacturing industry  
(annual percentage variation)



Sources: DANE; Banco de la República calculations.

the drop in the production of industrial raw materials, such as cement and iron for the sector. At the same time, it would also correspond to the fall in construction licenses seen last year.

Graph 29  
Real growth of the tradable and non-tradable GDP



Sources: DANE; Banco de la República calculations.

The downswing in the growth of the GDP in 2008 appeared not only in tradable sectors but also in non-tradables (Graph 29). In the case of tradables, the slowdown was 5.1 pp as it went from growing 7.3% in 2007 to 1.8% in 2008. However, in this group the good performance of the mining and quarrying sector, which grew 7.3% that year, stood out.

With respect to the non-tradables, growth was 2.9%, lower by 4.8 pp than that seen in the previous year. This slowdown occurred mainly because of the results in the trade and construction sectors. Government services grew 1.5% compared to 5.3% the year before.

For 2009, Colombian growth will continue to be affected by the difficult conditions abroad and, therefore, it is expected to be lower than what was seen in 2008. Nevertheless, it is estimated that the conditions exist for growth to be positive over the full year.

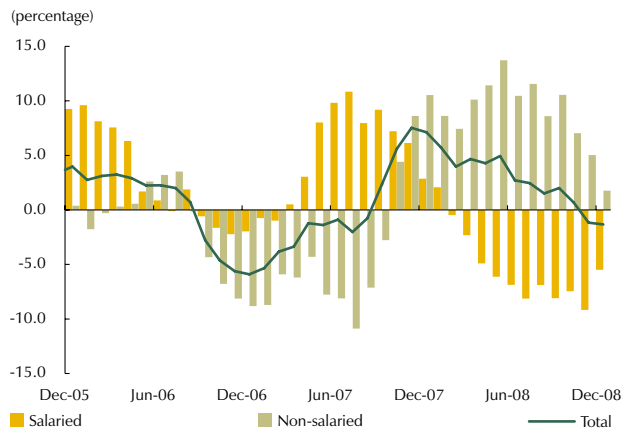
In the first place, the public sector (both local and national administrations) have the ability to spur the economy through the various investment projects that have already been announced. In the second place, the Colombian financial system is still solid and has continued to grant loans unlike what has happened in other countries.

Finally, the change in the monetary policy stance that started in October, 2008 with the reduction in the reserve requirements and, later, cuts in the interest rates will stimulate expenditures and contribute to reactivate the economy. These reductions have already begun to be rapidly transmitted to market interest rates, especially those for commercial loans. If the credit channel continues working, it will make it possible to have greater confidence in the effectiveness of this policy.

### C. RECENT TRENDS IN THE LABOR MARKET

In 2008, the figures from the labor market showed a gradual slowdown in the rate of employment creation, which ended with a fall in the total number of those employed at the end of the year. Employment generation was concentrated in the non-salaried segment. The salaried segment fell throughout the entire year. This phenomenon was associated partly with the weakening of economic activity, but it was also the result of various structural factors that

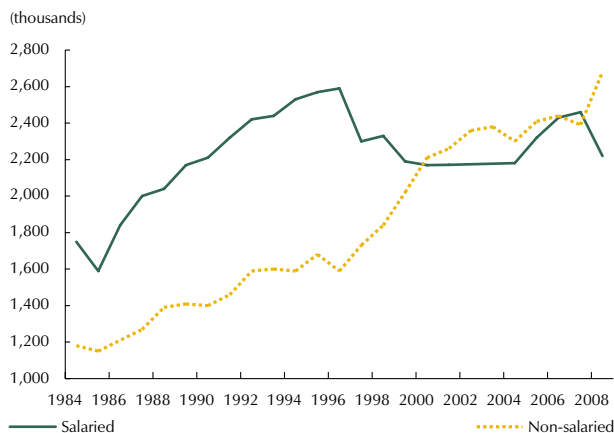
Graph 30  
Creation of employment  
National total-3 period moving average  
(annual variation of monthly data)



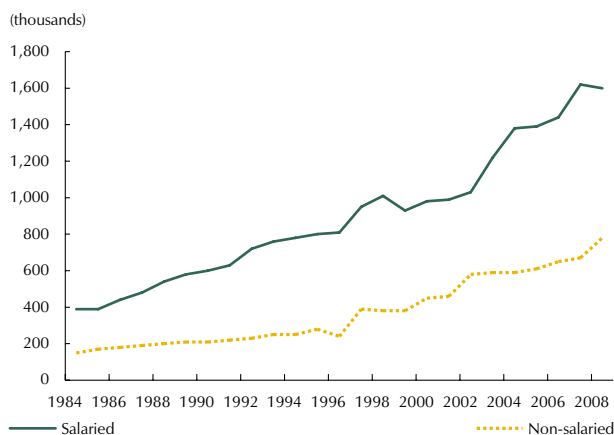
Sources: DANE; Banco de la República calculations.

Graph 31

A. Employed with higher education



B. Employed without higher education



Sources: DANE; Banco de la República calculations.

will be mentioned later. The fall in the demand for labor in the last quarter was reflected in a reversal in the employment rates, which led to annual upswings in the unemployment rates for the entire country for that period. These trends will be examined below by means of the recent developments in the main DANE labor indicators and of other available sources of information.

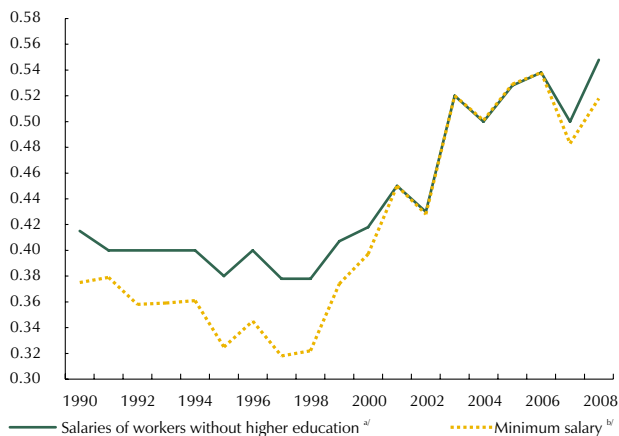
According to the numbers from DANE’s general integrated household survey (GEIH, in spanish) for all of 2008, the number of those employed grew at an annual rate of 2.0% and 2.9% on the national level and in the 13 main cities, respectively. This means that throughout the year, the job positions demanded by the productive apparatus of the economy increased 336,000 and 240,000 for the national total and the main urban areas, in that order. However, when just the numbers from the last quarter of 2008 are examined, the number of employed only rose 0.4% for the 13 cities and declined 1.3% for the national total with respect to the same period during the previous year. In the case of the salaried employees –private and government workers and employees– their number fell during 2008 at annual rates of 5.7% and 4.7% at the national level and at the 13 main urban areas, respectively. This translated into an annual loss of 435,000 and 218,000 salaried job positions for each one of the above mentioned sectors (Graph 30).

The reduction of salaried employment was accentuated for those who lacked higher education. For them, the legal, salaried job positions that were available plunged –they fell as of the second quarter of 2008 at an annual rate of 10.3%– to the point where 2008 began to see levels similar to those of 2004. In contrast, salaried employment for those with higher education only shrank slightly since in the same quarter it showed an annual fall of 1.8% (Graph 31).

Examining the total number of those employed with higher education (salaried and non-salaried), the shift towards non-salaried employment can be seen (Graph 31, panel A). This does not necessarily imply a deterioration in income from labor since those

with higher education and non-salaried employment receive payment that is similar to salaried workers.<sup>39</sup> A similar phenomenon is seen in the total number of employed people lacking higher education. However, in this case the higher growth of the non-salaried workers, which is the core of informal employment, translates into an upswing in the informal economy and precarious working conditions (Graph 31, panel B).

Graph 32  
Relative salaries with respect to workers with higher education  
(ratio of indices)



a/ Median salary of workers without higher education / Median salaries of workers with higher education.

b/ Minimum salary / Median salaries of workers with higher education.

Sources: DANE; Banco de la República calculations

Although the fall of salaried employment for those without higher education in 2008 was associated partly with the recent weakening in economic activity, two long term structural factors have worked together to accentuate this phenomenon. In the first place, the fall of the real price for the use of capital over the course of the decade,<sup>40</sup> which has worsened in the first half of 2008 by the marked appreciation of the peso in comparison to the dollar, has accelerated the substitution of capital goods for untrained labor. And in the second place, both the real minimum salary and the median salary for untrained, salaried workers has grown more rapidly in real terms compared to the real working income for people with some degree of higher education (Graph 32). This made untrained labor relatively less attractive.

Consequently, the increase in the total number of people employed in 2008 shown by the overall figures is based only on non-salaried employment, especially those working independently. The total for non-salaried employment grew in 2008 at annual rates of 8.2% and 12.3% on the national level and on the 13 main cities, respectively. However, in the fourth quarter, this also lost momentum since it grew only 1.8% and 5.9% with respect to the same period during the previous year for each of the sectors mentioned above. It should be mentioned that the results shown by this segment the year before may have been affected by the methodology changes produced by the introduction of the GEIH in 2007. As a result of this, the annual variations shown for this type of employment may be overestimated.

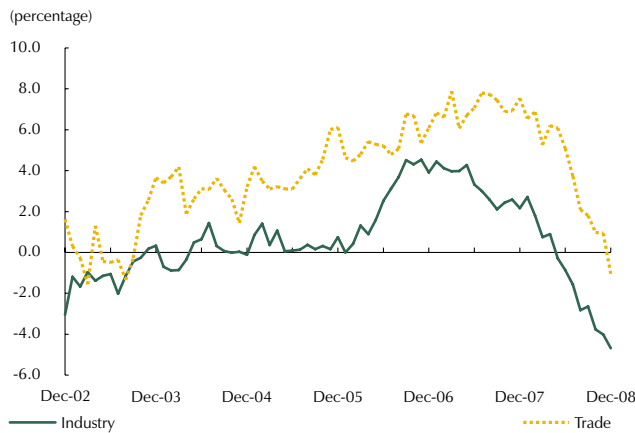
The numbers from sector surveys confirm the weakening of the demand for labor throughout 2008, as well as the drop in employment towards the end of the year. Up to November in the case of industry, employment fell at an

39 Hugo Lopez. "La desaceleración económica y el mercado laboral." Internal Working Paper, Banco de la República, 2009.

40 Eafit. "El costo de uso de capital y la inversión en Colombia 1990-2007," Economic Situation Group, 2007.



Graph 33  
Employment in industry and trade  
(annual percentage variation of monthly data)



Source: DANE (MMM-MMCM)

annual rate of 4.1% which was higher than in the previous months. This completed seven months of consecutive annual falls. In this sector, temporary employment was the one that was the most affected although in the last quarter of the year, permanent employment also began to decrease. In commerce, the rate of employment creation also halted towards the end of the year. In November, it grew at a rate of -0.2% annually while in the third quarter, it grew at 2.1% on average (Graph 33). In this last sector, the drop was concentrated in permanent workers.

In spite of the weakness shown by the employment figures in the GEIH and sector surveys, the social protection indicators continued to report significant growth in those affiliated to social security though to a smaller degree in the second half of 2008 in comparison to the first half (Table 6). It is worth mentioning that the latter figures may be distorted given the new mechanisms for collecting information (PILA) and the stronger incentives to be affiliated to the social security system.

Table 6  
Social Security Indicators in the National Total

Sub-systems	2007	2008	Cut off dates	Absolute variation 2007-2008	Percentage of annual variation 2007-2008	Percentage change three months ago
Affiliated workers-family subsidy funds	5,371,618	5,716,832	November	345,214	<b>6.4</b>	<b>7.2</b>
Affiliates-PRM	5,930,285	6,148,177	August	217,892	<b>3.7</b>	<b>4.1</b>
Actively contributing to pensions	5,281,063	5,807,659	October	526,596	<b>10.0</b>	<b>3.4</b>
Contributing to ISS pension system	1,815,504	1,879,936	October	64,432	<b>3.5</b>	<b>(1.6)</b>
Contributing to compulsory pension funds	3,465,559	3,927,723	October	462,164	<b>13.3</b>	<b>6.1</b>
Affiliates to voluntary pensions	495,130	525,056	November	29,926	<b>6.0</b>	<b>6.1</b>

Sources: Ministry of Social Protection, with data from ISS, Superintendent of Financial Institutions and Superintendency of Family Subsidies.

With that situation, the gradual weakening of the demand for labor reflected in the above trends resulted in annual drops in the employment rate in all of the fields in the GEIH for the fourth quarter of 2008. These downswings are stronger than the falls registered in labor supply (measured by the global participation rate [GPR]) for each one of the specific segments of the survey in the same period. This caused an annual rise in the unemployment rates for the entire country and, to a more pronounced degree, in the main urban zones by the end of the year. The rates of unemployment for the last quarter

of 2008 were 10.5% for the national total and 10.7% for the 13 main cities, and thus indicating rises of 0.7 pp and 1.0 pp with respect to the same quarter of the previous year (Table 7). These rates were 11.3% and 11.5% in the aforementioned survey fields for all of 2008, and thus point to an upswing of 0.1 pp in both cases with respect to 2007. It should be noted that since the share of labor diminished slightly, the negative momentum of employment did not translate into larger scale annual rises in the unemployment rate.

Table 7  
Labor Market Indicators  
Quarter: October-November-December

	2004	2005	2006	2007	2008	Difference 2007 and 2008		Previous moving quarter, <sup>a/</sup> diff. 2007 and 2008	
						Absolute	Percentage	Absolute	Percentage
Global rate of participation									
National	61.4	61.3	57.5	59.5	58.2	<b>(1.30)</b>	--	0.54	--
Rural area	58.1	57.3	51.1	54.2	52.3	<b>(1.96)</b>	--	(0.01)	--
County seats	62.5	62.6	59.6	61.2	60.1	<b>(1.12)</b>	--	0.68	--
13 cities	63.8	64.1	60.6	62.4	62.2	<b>(0.22)</b>	--	1.12	--
Employment rate									
National	53.9	55.1	51.0	53.7	52.1	<b>(1.59)</b>	--	0.18	--
Rural area	53.9	53.6	47.1	50.5	48.4	<b>(2.11)</b>	--	(0.67)	--
County seats	53.9	55.6	52.2	54.7	53.2	<b>(1.45)</b>	--	0.43	--
13 cities	55.1	56.3	53.3	56.3	55.5	<b>(0.80)</b>	--	0.66	--
Unemployment rate									
National	12.1	10.2	11.4	9.8	10.5	<b>0.72</b>	--	0.52	--
Rural area	7.2	6.3	7.9	6.8	7.4	<b>0.54</b>	--	1.31	--
County seats	13.7	11.3	12.3	10.6	11.4	<b>0.74</b>	--	0.29	--
13 cities	13.6	12.0	12.1	9.8	10.7	<b>0.97</b>	--	0.54	--
EAP (thousands)									
National	19,387	19,710	18,800	19,790	19,726	<b>(64.13)</b>	(0.3)	505.66	2.6
Rural area	4,602	4,553	4,084	4,361	4,208	<b>(153.76)</b>	(3.5)	26.91	0.7
County seats	14,785	15,158	14,716	15,428	15,518	<b>89.63</b>	0.6	478.76	3.2
13 cities	9,229	9,446	9,112	9,564	9,792	<b>228.66</b>	2.4	351.75	3.7
Employed (thousands)									
National	17,032	17,710	16,665	17,853	17,615	<b>(237.40)</b>	(1.3)	349.20	2.0
Rural area	4,270	4,264	3,761	4,063	3,920	<b>(142.72)</b>	(3.5)	(29.19)	(0.8)
County seats	12,762	13,446	12,904	13,790	13,695	<b>(94.68)</b>	(0.7)	378.39	2.8
13 cities	7,978	8,308	8,006	8,629	8,664	<b>35.76</b>	0.4	260.40	3.1
Unemployed (thousands)									
National	2,355	2,001	2,135	1,937	2,073	<b>136.00</b>	7.0	156.46	7.5
Rural area	332	289	324	299	311	<b>12.32</b>	401	56.10	17.0
County seats	2,023	1,712	1,812	1,638	1,763	<b>125.04</b>	7.6	100.36	5.7
13 cities	1,251	1,138	1,105	935	1,052	<b>117.18</b>	12.5	91.35	8.8

a/ Corresponds to absolute and percentage annual variations for the July-August-September quarter.  
Source: DANE-Chief Integrated Household Survey (GEIH in Spanish); Banco de la República calculations.

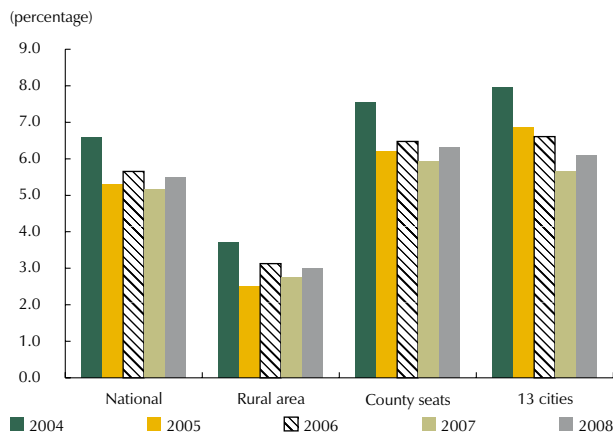
In addition, the labor market figures for heads of households, which is the segment of the population that usually has more stable labor conditions, showed the same patterns of behavior in 2008 as the indicators for the entire population but they were observed earlier. For all of 2008, both the rates of employment and the GPR showed downswings. The former was greater in magnitude so

the rates of unemployment also rose in all of the fields included in the survey. At the national level, the unemployment rate for heads of households was 5.5% in 2008 compared to 5.2% in 2007 while in the 13 cities, this rate was 6.1% in 2008 compared to 5.7% in 2007. Thus, just as in the total population, the annual rise in the unemployment rate for heads of households was more pronounced in the 13 main cities than in the national total (Graph 34).

To summarize, in 2008 the different indicators showed a slow growth in the demand for workers with a contraction in employment, especially salaried employment, by the end of the year. Nevertheless, the reduction in the labor participation prevented rises in unemployment from being higher. For 2009, a similar or more accentuated momentum in the demand for labor is anticipated and there is

the additional risk of an increase in labor share due to the phenomenon called ‘additional worker,’ namely, the increase in the labor supply due to the fact that secondary household members enter the labor market when the heads of households begin to lose their jobs. These two trends work in the same direction and increase the probability of upswings in the unemployment rate with respect to 2008.

Graph 34  
Unemployment rate for heads of households  
(annual average)



Source: DANE

## D. MONETARY POLICY AND THE FINANCIAL SECTOR

### 1. Monetary Policy Decisions in 2008

Monetary policy decisions were determined by three types of events in 2008. The first was the persistence of inflationary pressures resulting from the high growth of the aggregate demand since 2006. Secondly, the effect of the high international prices for oil and commodities put pressure on costs and raised inflation expectations. Third, there was the uncertainty over the depth and duration of the international financial crisis in the developed countries and their possible effects on emerging economies.

In this context, the BDBR raised the intervention rate 25 bp in February, 2008 and set it at 9.75%. Since then, in spite of the persistence of inflationary pressures, the Board has decided to act cautiously as it was already evident that

the context abroad was deteriorating and its intensity or duration could not be predicted clearly. At the same time, there was a slowdown in the growth of domestic demand.

Between March and June, 2008, the Board decided to keep the policy interest rate unchanged. However, in July they raised it again by 25 bp in view of the upswing in various indicators of core inflation, the higher inflation expectations and the acceleration of international inflation. In the following months and until November, the Board kept the policy interest rate unchanged. Afterwards, between December, 2008 and March, 2009, they reduced it 300 bp to 7%.

The Board also decided to make purchases of foreign currency using the mechanisms that were previously announced to the market. Specifically:

- On March 28, an auction of put options was announced to accumulate US\$150 m in reserves per month with which it would be possible to make a total of US\$1,800 m in purchases of foreign currency for the rest of the year.
- On June 20, the Board decided to replace the reserve accumulation plan previously mentioned for purchases of US\$20 m daily through competitive auctions.

In order to prevent short term interest rates from deviating significantly from the policy rate, the Bank decided to complement the monetary expansion generated by these foreign currency purchases with mechanisms which would help compensate for their monetary effect. That is the reason the decision was made in June to modify the reserve requirements. The marginal reserve requirement was eliminated and the ordinary reserve requirement was raised from 8.3% to 11.5% for checking accounts, savings accounts and other demand deposits and from 2.5% to 6% for CDs as of September, 2008. Afterwards, at the end of August, the Board decided to reactivate auctions of non-reserve interest-bearing deposits (NRIBD) and keep the overnight contracting facility open to compensate for the expansionary effect of TES maturities programmed for that month.

In the second half of the year, in view of the deepening of the international financial crisis, the exchange rate began to show marked volatility along with a significant rise in its level. This caused the Board to suspend the deposit requirement on borrowing abroad as of October and authorize immediate reimbursement without subjecting them to the discount percentages for deposits in effect. At the same time, the Board suspended direct purchase of international reserves and changed the monetary policy stance by reducing the average banking reserve requirement as follows: the ordinary reserve requirement for checking accounts, savings accounts and other demand

deposits went from 11.5% to 11% and the ordinary reserve requirement for CDs, from 6% to 4.5% as of the two-week period starting November 19, 2008.

Other measures were adopted in order to facilitate the management of end-of-the year liquidity. Specifically, it was decided:

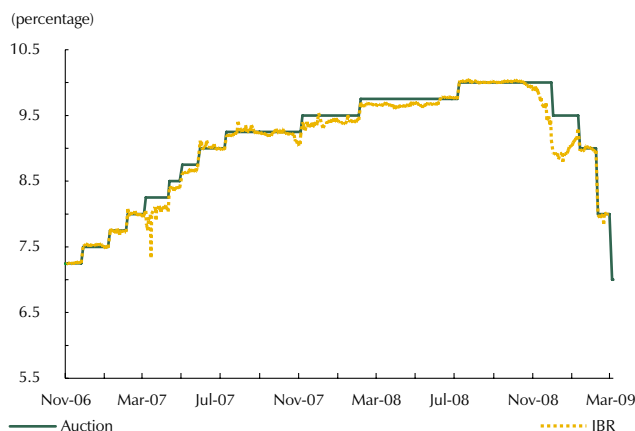
- to make Col\$500 bn of final purchases of TES.
- to temporarily stop contraction auctions, even though the overnight facility was kept open at the Lombard contraction rate.

In the last few months of the year, the global economic slowdown sharpened. This resulted in the reduction of international prices for leading commodities and a decline in the international inflation expected for 2009. At the same time, the downswing in the growth of domestic aggregate demand intensified, which was consistent with national productive activity. Inflation expectations also fell. As a result of the aforementioned reasons the BDBR decided to lower the policy interest rate 50 bp at the end of 2008, an additional 50 bp in January, 100 bp at the end of February and 100 bp in March, 2009.

## 2. Performance of the Interest Rates in 2008

### a. Banco de la República and Market Interest Rates

Graph 35  
Banco de la República liquidity-expansion auction interest rates and interbank borrowing rates (IBR), 2006-2009<sup>a/</sup>



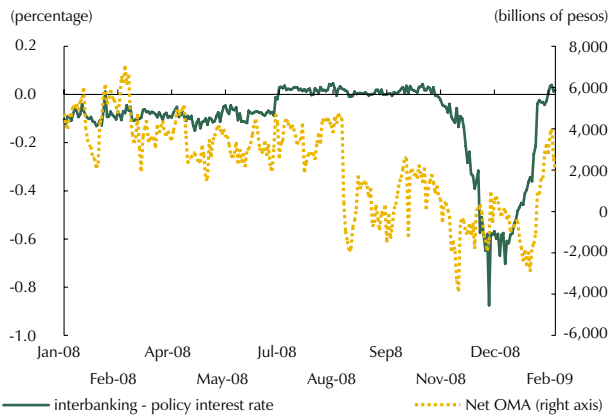
a/ The numbers correspond to working day data. The last datum from the Banco de la República's expansion rate corresponds to March 26, 2009 and that of the IBR corresponds to March 18, 2009.  
Sources: Financial Superintendence of Colombia and Banco de la República

As was mentioned, in the first part of 2008, the Bank raised the interest rates on the repo auctions at two points –February and July. As a result of this, the level of the policy rate reached 10% in July, 2008 and was left unchanged until mid-December. Thus, the increases that had started in April, 2006, reached a total of 400 bp. After that, in the December, 2008 and January, February, and March, 2009 sessions, the Board lowered the intervention rate until it stood at 7% (Graph 35).

The transmission of the Banco de la República interest rate to the interbank borrowing rate (IBR) was very close between April, 2006 and October, 2008. Indeed, while the intervention interest rate rose 400 bp during this period, the IIR rose 412 bp. Starting then, the interbanking rate deviated significantly from the Banco de la República's intervention interest rate when it

settled below the latter (Graph 35). One of the explanations for this behavior is the fact that the Bank held a net debt position relative to the financial system. At the beginning of January, 2009, the NRIBD auctions were started up again. The consequence of this mechanism was that the IBR returned to levels close to

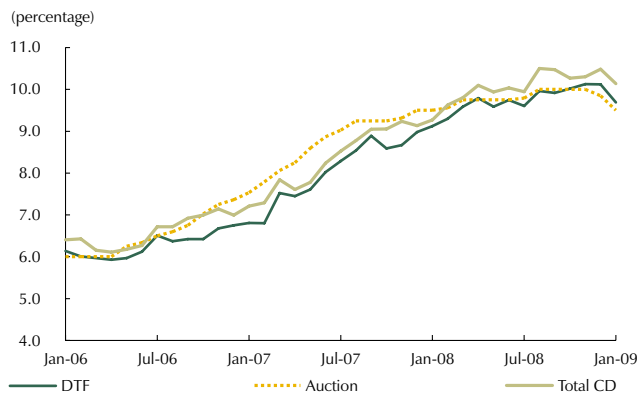
Graph 36  
Spread between interbank borrowing rate and policy interest rate and Banco de la República's net creditor position <sup>a/</sup>



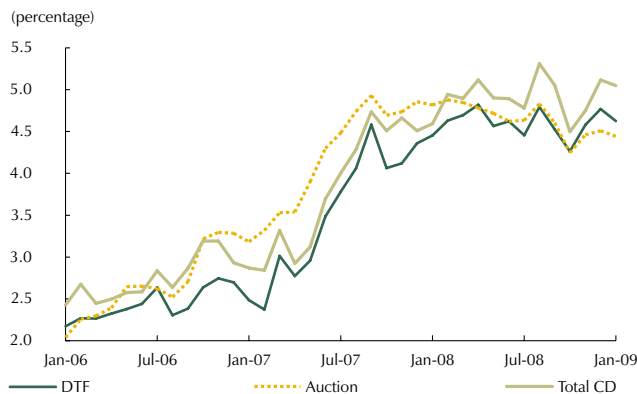
a/ The Bank's net creditor position is calculated as the difference between the expansion repo rates and the financial system deposits in the Bank that are not part of bank reserves. If this difference is positive (negative), the Bank is said to be a net creditor (net debtor) of the financial system.  
Sources: Financial Superintendence of Colombia and Banco de la República.

Graph 37  
Deposit rates and interest rates for Banco de la República's liquidity-expansion auctions

A. Nominal



B. Real (deflated by the CPI excluding food)



Source: Financial Superintendence of Colombia; Banco de la República calculations.

the policy interest rate towards the end of that month (Graph 36).

The transmission of the increase in the policy interest rate between April, 2006 and November, 2008 to the deposit interest rates (DTF) on the market was complete (Graph 37). Even though there was a period in which the DTF and the deposit rates for CDs were below the policy interest rate, their levels surpassed the intervention interest rate towards the end of 2008. This result was consistent with the measures that the Board had been taking since 2007 to increase the banking reserve requirement.

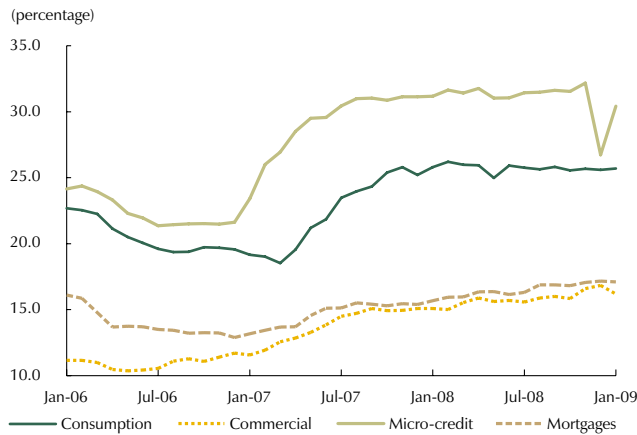
Specifically, the DTF rose from 5.9% in April, 2006 to 9% in December, 2007 and to 10.1% in November, 2008 (a total of 420 bp). The average deposit rate, in turn, for CDs rose from 6.1% in April, 2006 to 9.1% in December, 2007 and to 10.3% in November, 2008 (a total of 420 bp). In December, 2008, the DTF remained at 10.1% while the rate for CDs rose to 10.5%. After the policy interest rate was lowered 50 bp towards the end of December, the DTF and CD rates fell to 9.7% and 10.1% respectively in January, 2009.

The transmission of the rises in the policy interest rate between April, 2006 and November, 2008 to the lending rates was also complete in all of the lending modalities except for ordinary loans and mortgages. Specifically, the interest rate for the commercial lending portfolio went from 10.5% in April, 2006 to 15.1% in December, 2007 and to 16.6% in November, 2008 (a total increase of 613 bp) (Graph 38). Analyzing the components of this portfolio, it can be seen that the rises in the interest rates for Treasury and preferential loans were 754 bp and 705 bp respectively between April, 2006 and November, 2008 while the rate for ordinary loans rose barely 218 bp in the same period.

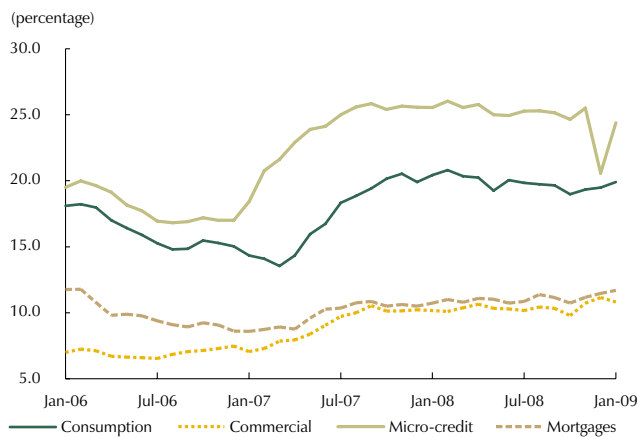
The interest rates for consumer loans, in turn, were 25.7% in November, 2008 with an increase of 454 bp compared to the level in April, 2006. During the same period, the interest rates for housing loans and micro-credit rose 339 bp and 885 bp respectively and their levels in November, 2008 were 17.1% for the mortgage portfolio and 32.2% for micro-credit.

Graph 38  
Interest rate on lending

A. Lending rate (nominal monthly average)

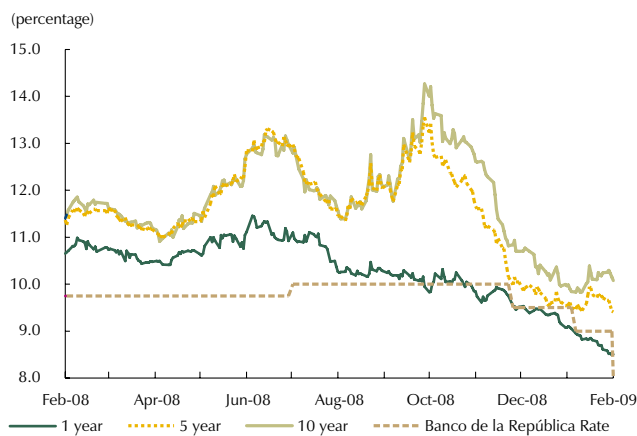


B. Lending rate (deflated by the CPI excluding food)



Sources: Financial Superintendence of Colombia; and Banco de la República.

Graph 39  
Curve for zero-coupon peso TES and Banco de la República policy rate, January, 2008 to January, 2009



Sources: Colombian stock market and Banco de la República.

In January, 2009, the rates for commercial, consumption and housing loans were 16.2%, 25.7% and 17.1% respectively, which were similar to those seen in November, 2008. In contrast, the interest rate for the micro-credit portfolio declined to 30.4% in January, 2009.

*b. The Development of the Domestic Public-Debt Market in 2008*

The first ten months of 2008 were an unfavorable period for the local public debt market. The medium and long term TES showed an increase in their rates which meant a devaluation in their prices. Thus, for example, a bond maturing in 2020 went from a rate of 10.30% in January to one of 13.18% at the end of October (Graph 39). The short term TES devalued until the end of June after which they began a appreciation trend that continues to date.

The medium and long term TES rates were influenced by the deterioration in inflation expectations after the significant rise in prices and the increase in international risk aversion.

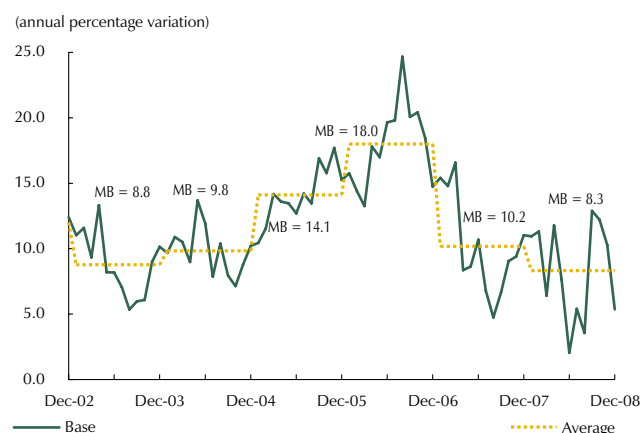
In February and July, 2008, the BDBR continued their policy of increasing the interest rate that was started in April, 2006 by raising it from 9.5% to 10.0%.<sup>41</sup> As of October both the observed inflation and the inflation expectations fell, and thus favored a similar movement in the returns of public debt securities, especially the medium and long term ones. Consequently, the curve showed a downward shift along with some flattening. Moreover, taking into account the change in the inflation trend and drop-off in growth expectations both domestically and internationally, the BDBR has made two 50 bp reductions (in December and January) and two of 100 bp (in February and March) in the interest rate thus placing it at 7% currently. As a result, the benchmark security rate with maturity in July, 2020 stood close to 9.7% at the end of March.

41 Starting April, 2006, when the cycle of rising interest rates began and up to July, 2008, the BDBR raised their policy rate by 400 bp.

### 3. Monetary Base, Credit and Financing Sources of the Financial System

The development of monetary and credit aggregates reflects the behavior of economic agents, which is partly in response to the policy measures of the monetary authorities. The central bank is responsible for keeping the overnight interest rate at the level fixed by the Board and grants all the liquidity that agents need at that rate. This means that the behavior of the monetary base is determined by the agents' decisions and the financial system in the primary liquidity market, while loan performance reflects the agents' needs to make expenditures, and the performance of M3 shows the demand for money decision.

Graph 40  
Real monetary base  
(deflated by total CPI)



Source: Banco de la República.

#### a. Monetary Base: Uses and Sources

##### i. Uses

In 2008, the monetary base showed an average annual variation of 15.9%, equivalent to 8.3% in real terms (Graph 40). This real variation was lower than in 2007 by 2 pp. It was the product of the lower demand for cash and the higher growth of the banking reserve. To be specific, the average annual increases in cash and banking reserve were 8.7% and 33.8% respectively in 2008 (1.6% and 25.1% real).

The demand for cash slowed down noticeably in 2008. After showing nominal increases of 11% in December, 2007, this rate dropped to levels of close to 7% in December, 2008. This decline coincided

with rises in the interest rates and inflation. These factors increased the opportunity cost of keeping money in cash.

The banking reserve rose 36% in nominal terms on the average in the second half of 2008 and had grown 27% at the end of December. This high growth in the reserve was partly due to the measures that the BDBR had adopted regarding the reserve requirement for the second half of the year. This, as was mentioned, included the elimination of the marginal reserve requirement and increase in the ordinary reserve requirement for specific types of deposits in the last quarter of the year.

##### ii. Expansion Sources for the Base

Primary liquidity in the economy is supplied by Banco de la República through transactions with the rest of the agents, especially financial entities. The Bank



injects liquidity into the economy when it acquires assets or lends money to the financial system, and vice versa.

The monetary base rose Col\$3.778 bn at an annual growth rate of 11.7% between December, 2007 and December, 2008. Based on Table 8, the main sources for supplying this liquidity in pesos in 2008 were:

- Banco de la República net purchases of Col\$3,899 bn in foreign currency on the foreign exchange market mainly through direct purchase auctions (Col\$2,705 bn).
- A Col\$2,144 bn reduction in government deposits at Banco de la República.
- The transfer of Col\$1,415 bn in Banco de la República profits to the government. This was done in pesos in 2008, unlike what happened in 2007 when the transfer was made in dollars.
- Other factors which explain the Col\$2,053 bn expansion are the reduction in peso deposits at the Banco de la República for loan and portfolio operations abroad and the net expansionary effect of the Bank's profit and loss operations.

The above expansion was partly offset by the following factors:

- The lower liquidity granted by Banco de la República in transactions with the financial system. The repo balance, in particular, was reduced by Col\$3,856 bn in December, 2008 in comparison to the same date in 2007 at the same time as the NRIBD balance was up by Col\$1.365 bn.
- The final net sales and maturity of the TES that Banco de la República was holding, which totaled Col\$513 bn.

#### ***b. Financing Sources of the Financial System and M3***

A significant part of the growth of credit establishments' portfolios was financed through the liquidation of their investment position –particularly, sales of TES– between 2006 and 2007. This behavior changed in 2008 when investments in the financial system rose (Table 9).

In 2008, the upswing in the credit establishments' investments (Col\$3.610 bn) and the portfolio in national currency (Col\$20,071 bn) were totally financed by the larger deposits in these entities. The liabilities subject to reserve (LSR) rose Col\$25,980 bn in annual terms (19.3%). The deposits with the greatest momentum continued to be those made through CDs and bonds with annual increases of 35.6% and 33.9% respectively. On the other hand, the rate of growth

Table 8  
Sources of the Monetary Base  
Quarterly change  
(billions of pesos)

	2007					2008					2009
	Mar.	Jun.	Sep.	Dec.	Acumulated	Mar.	Jun.	Sep.	Dec.	Acumulated	
<b>I, Government</b>	<b>(2,194)</b>	<b>(5,565)</b>	<b>2,708</b>	<b>2,935</b>	<b>(2,117)</b>	<b>(4,187)</b>	<b>271</b>	<b>2,936</b>	<b>4,539</b>	<b>3,559</b>	<b>(1,493)</b>
Transfer of revenue <sup>a/</sup>	0	0	0	0	0	1,415	0	0	0	1,415	0
Pesos	0	0	0	0	0	1,415	0	0		1,415	0
Deposits at Banco de la República	(2,194)	(5,565)	2,708	2,935	(2,117)	(5,602)	271	2,936	4,539	2,144	(1,493)
<b>II, TES Regulation</b>	<b>(914)</b>	<b>(56)</b>	<b>(39)</b>	<b>(151)</b>	<b>(1,161)</b>	<b>(147)</b>	<b>(981)</b>	<b>(0)</b>	<b>616</b>	<b>(513)</b>	<b>0</b>
Definite purchases	60	0	0	0	60	0	0	0	625	625	0
Definite sales	(660)	0	0	0	(660)	(137)	(823)	0	0	(960)	0
Matured	(315)	(56)	(39)	(151)	(561)	(10)	(158)	(0)	(9)	(178)	0
<b>III, Banco de la República Liquidity Operations</b>	<b>(6,046)</b>	<b>4,641</b>	<b>(2,525)</b>	<b>2,438</b>	<b>(1,492)</b>	<b>(1,571)</b>	<b>733</b>	<b>(5,077)</b>	<b>693</b>	<b>(5,221)</b>	<b>(984)</b>
Expansion <sup>b/</sup>	(6,046)	5,801	(3,269)	2,281	(1,233)	(1,713)	1,102	(3,439)	193	(3,856)	1,088
Contraction	0	(1,160)	743	158	(259)	142	(369)	(1,638)	500	(1,365)	(2,072)
<b>IV, Foreign exchange</b>	<b>8,517</b>	<b>1,835</b>	<b>(1)</b>	<b>(25)</b>	<b>10,326</b>	<b>505</b>	<b>1,346</b>	<b>2,404</b>	<b>(356)</b>	<b>3,899</b>	<b>(418)</b>
Put options to control volatility	0	759	359	1	1,119	505	422	0	5	932	0
Call options to control volatility	0	(347)	(360)	(26)	(732)	0	0	0	(535)	(535)	(418)
Reserve put options	0	0	0	0	0	0	798	0	0	798	0
Direct purchase auction	0	0	0	0	0	0	126	2,404	174	2,705	0
Discretionary intervention	8,517	1,422	0	0	9,939	0	0	0	0	0	0
<b>V, Other <sup>c/</sup></b>	<b>110</b>	<b>(748)</b>	<b>(714)</b>	<b>1,179</b>	<b>(173)</b>	<b>275</b>	<b>454</b>	<b>890</b>	<b>434</b>	<b>2,053</b>	<b>92</b>
<b>Total change in the base</b>	<b>(527)</b>	<b>106</b>	<b>(572)</b>	<b>6,377</b>	<b>5,383</b>	<b>(5,125)</b>	<b>1,823</b>	<b>1,154</b>	<b>5,925</b>	<b>3,778</b>	<b>(2,803)</b>
<b>Balance of the monetary base</b>	<b>26,505</b>	<b>26,611</b>	<b>26,038</b>	<b>32,415</b>	<b>32,415</b>	<b>27,290</b>	<b>29,114</b>	<b>30,268</b>	<b>36,193</b>	<b>36,193</b>	<b>33,390</b>

a/ February 28, 2007 government revenue was around \$1,186 b (US\$533 m).

b/ This includes overnight repos and medium term loans.

c/ The monetary effect of the Banco de la República P & L as well as the monetary effect of deposits due to borrowing and foreign portfolios is mainly found within Others.

Source: Banco de la República.

Table 9  
Main Balance Sheet Accounts of Credit Institutions excluding FEN

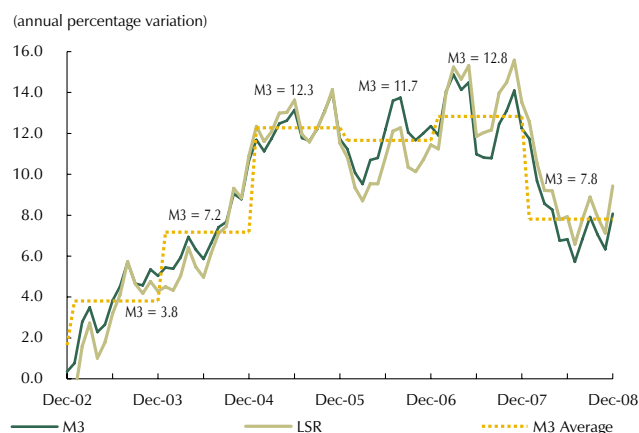
	Balances, end of (millions of pesos)			Absolute annual variation		Percentage annual change	
	Dec-06	Dec-07	Dec-08	Dec-07	Dec-08	Dec-07	Dec-08
<b>Assets</b>							
Cash position <sup>a/</sup>	1,248	3,315	1,701	740	(4,813)	0.2	(1.3)
Banking reserve	6,955	10,075	12,832	3,120	2,757	44.9	27.4
Banco de la República OMO liabilities and non-reserve interest-bearing deposits	0	259	1,193	259	934	---	---
Loan Portfolio + leasing	90,434	112,720	132,791	22,286	20,071	24.6	17.8
Net loan portfolio (local currency)	82,577	102,145	120,724	19,568	18,578	23.7	18.2
Leasing portfolio (local currency)	7,857	10,575	12,068	2,718	1,493	34.6	14.1
Investments	36,890	34,998	38,607	(1,892)	3,610	(5.1)	10.3
Net others	(16,398)	(21,700)	(24,960)	(3,974)	(61)	24.2	0.3
<b>Total</b>	<b>119,128</b>	<b>139,667</b>	<b>162,164</b>	<b>20,538</b>	<b>22,498</b>	<b>17.2</b>	<b>16.1</b>
<b>Liabilities</b>							
Repos with Banco de la República	6,636	5,403	1,921	(1,233)	(3,482)	(18.6)	(64.4)
LSR	112,492	134,264	160,243	21,772	25,980	19.4	19.3
<b>Savings</b>	<b>48,919</b>	<b>54,707</b>	<b>60,020</b>	<b>5,788</b>	<b>5,313</b>	<b>11.8</b>	<b>9.7</b>
<b>Checking accounts</b>	<b>20,451</b>	<b>23,022</b>	<b>24,887</b>	<b>2,571</b>	<b>1,865</b>	<b>12.6</b>	<b>8.1</b>
<b>CDs</b>	<b>32,737</b>	<b>43,990</b>	<b>59,649</b>	<b>11,253</b>	<b>15,659</b>	<b>34.4</b>	<b>35.6</b>
<b>Trust deposits</b>	<b>2,513</b>	<b>3,471</b>	<b>4,355</b>	<b>958</b>	<b>884</b>	<b>38.1</b>	<b>25.5</b>
<i>Demand deposits</i>	2,500	2,754	2,693	254	(62)	10.2	(2.2)
<i>Bonds</i>	4,971	6,161	8,250	1,190	2,089	23.9	33.9
<i>Repos (TGN + real sector)</i>	401	158	389	(243)	231	(60.6)	146.7
<b>Bills of exchange</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>(0)</b>	<b>(0)</b>	<b>(15.5)</b>	<b>(21.9)</b>
<b>Total</b>	<b>119,128</b>	<b>139,667</b>	<b>162,164</b>	<b>20,538</b>	<b>22,498</b>	<b>17.2</b>	<b>16.1</b>

Note: Corresponds to the monetary month.

a/ Does not include stock market brokers; the absolute variations correspond to the changes in dollars multiplied by the average exchange rate for the period.

Source: Banco de la República.

Graph 41  
Broad money, real M3 (deflated with total CPI)



Source: Banco de la República.

for checking and savings accounts slowed down with respect to 2007 partly as a consequence of the reserve requirement differential that characterized the marginal reserve requirement measure, which was in force until September, 2008.

The performance of the LSR was reflected in a 15.4% average annual growth of M3 in 2008 (7.8% in real terms) (Graph 41).

An acceleration in the growth rate of public sector deposits in credit establishments had been evident. Towards the end of December, 2008, the annual growth of the public M3 was 22.8% which was 13.8 pp above that of December, 2007. In contrast,

private M3 rose 15.9% annually in December, 2008, a growth that was lower than the 20% registered a year previously (Table 10).

Table 10  
Broad Money Supply: public and private M3 <sup>a/</sup>  
(billions of pesos)

	Balance as of December		Annual growth (%)	Annual growth average (%)
	2007	2008		
<b>Private M3</b>	<b>132.653</b>	<b>153.786</b>	<b>15.9</b>	<b>15.0</b>
Cash	22.459	24.371	8.5	9.0
LSR	110.194	129.415	17.4	16.2
Checking accounts	17.093	18.012	5.4	5.4
CDs	41.862	56.313	34.5	35.0
Savings <sup>b/</sup>	43.506	45.051	3.6	0.7
Others	7.734	10.039	29.8	35.1
<b>Public M3</b>	<b>24.168</b>	<b>29.675</b>	<b>22.8</b>	<b>17.5</b>
Checking accounts	5.967	6.899	15.6	19.3
CDs	2.121	3.761	77.4	49.9
Savings	10.848	13.584	25.2	15.4
Others	5.233	5.430	3.8	9.9
<b>Total M3</b>	<b>156.822</b>	<b>183.461</b>	<b>17.0</b>	<b>15.4</b>
Cash	22.459	24.371	8.5	9.0
LSR	134.362	159.090	139.4	33.6
Checking accounts	23.059	24.911	21.0	24.7
CDs	43.982	60.074	111.9	84.9
Savings	54.354	58.635	28.8	16.2
Others	12.966	15.470	33.6	45.0

a/ Annual percentage change.

b/ Does not include deposits in the Military Housing Fund which was established in July, 2006.  
Sources: Banco de la República and the Superintendent of Financial Institutions of Colombia.

### c. *Loan Portfolio*

The increase in the policy interest rate, which started in April, 2006, and the reserve requirement measures adopted as of May, 2007 lowered the growth of the financial system's loan portfolio. In real terms, the gross portfolio of credit institutions began to fall from levels close to 30% at the beginning of 2007 to 9.8% in December, 2008.

By type of portfolio, the major slowdown in national currency was recorded in consumption, which in real terms registered a change of 4.1% annually compared to 28.1% the year before (the nominal growth dropped 24 pp in the

same period) (Table 11). Rates of real growth lower than 10% had not been seen since 2002 (Graph 42).

Table 11  
Gross Loan Portfolio: Financial System <sup>a/</sup>

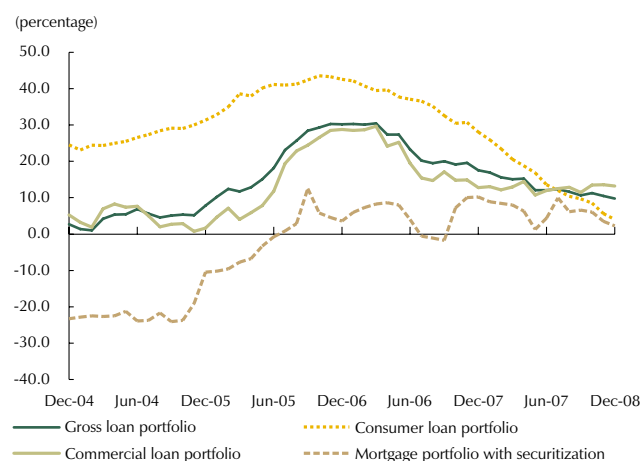
	Balance in billions of pesos, end of December,			Annual percentage growth, end of December,		
	2006	2007	2008	2006	2007	2008
A. Domestic currency	85,784	106,675	126,924	36.0	24.4	19.0
Mortgage	7,540	9,078	9,988	10.8	20.4	10.0
Consumption	26,430	35,832	39,976	48.0	35.6	11.6
Micro-credit	1,685	1,982	2,973	34.1	17.6	50.0
Commercial	50,130	59,784	73,988	34.8	19.3	23.8
B. Adjusted mortgage portfolio	10,171	12,186	14,026	7.2	19.8	15.1
C. Foreign currency	3,834	6,553	7,532	(19.5)	70.9	14.9
D. Total (A + C)	89,618	113,228	134,457	32.1	26.3	18.7
E. Financial leasing (and foreign currency) <sup>b/</sup>	8,063	10,925	12,189	47.1	35.5	11.6
F. Total loan portfolio with leasing (D + E)	97,681	124,153	146,646	33.2	27.1	18.1

a/ Excluding FEN and entities being liquidated. Data as of the close of the fiscal month.

b/ The figures for financial leasing are only available as of January 30, 2004.

Source: Form 281 from the Superintendent of Financial Institutions (asset and liability accounts).

Graph 42  
Real annual growth of credit establishments' gross loan portfolios in local currency <sup>a/</sup>



a/ Deflated with total CPI.

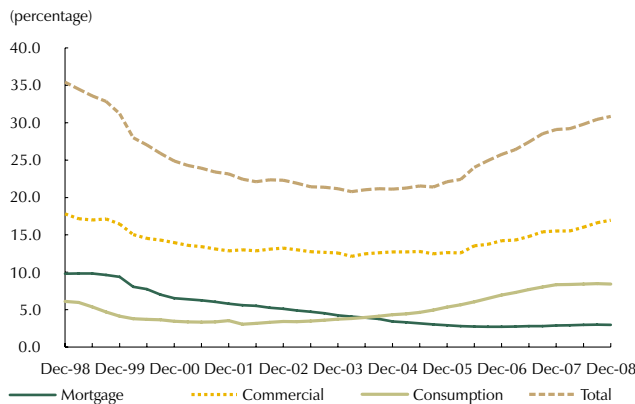
Sources: Financial Superintendence of Colombia; Titularizadora Colombia (Colombian securitization company); Banco de la República calculations.

The slowdown was also seen in commercial and mortgage portfolios, which had real annual growths of 12.9% and 6.1% respectively compared to 15.3% and 11.8% the year before (in nominal terms, their momentum dropped 4.5 pp and 5.4 pp respectively). In contrast, micro-credit and the commercial portfolio rose to rates above those of 2007 (32 pp and 4 pp respectively in nominal terms).<sup>42</sup>

This lower portfolio growth is a response to various factors among which the lagged effects of Banco de

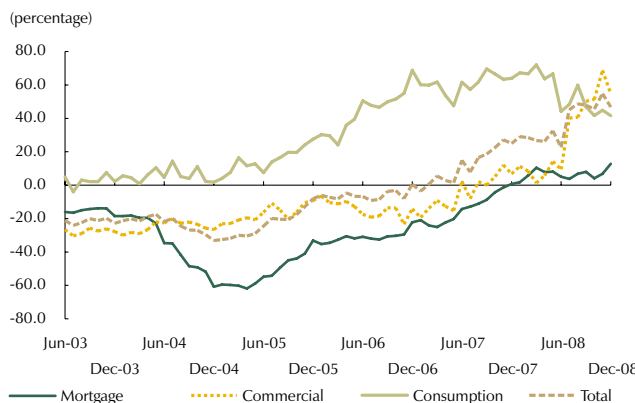
42 It should be clarified that in the measurement of the micro-credit portfolio, its variation includes a statistic effect since, due to Decree 919/2008, credit institutions must reclassify some of the loans that are in effect in this credit category.

Graph 43  
Financial deepening  
(Loan portfolio/GDP)



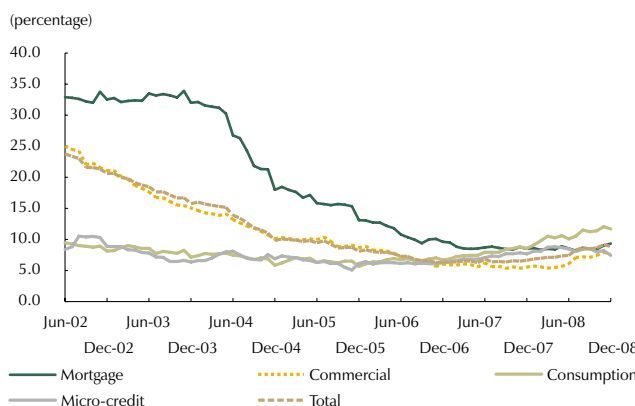
Sources: Financial Superintendence of Colombia; Banco de la República calculations.

Graph 44  
Real growth of the risky loan portfolio  
(deflated by the total CPI)



Sources: Financial Superintendence of Colombia; Banco de la República calculations.

Graph 45  
Loan portfolio quality by type of loan  
(risky loan portfolio/gross loan portfolio)



Sources: Financial Superintendence of Colombia; Banco de la República calculations.

la República's intervention policy and the reserve requirement should be highlighted.

The decline in GDP growth in 2008 was greater than the decline in loan portfolio growth, which made the index of financial depth, measured as a ratio of the loan portfolio to GDP, to keep rising and reach a value of 30.8% in December, 2008. For the commercial and consumer portfolio, the indicator levels rose to 17.0% and 8.4% respectively. These are the highest levels since the periods before the financial crisis at the end of the '90s (Graph 43).

In the second half of 2008, the risky loan portfolio grew at higher rates than those seen in the latest 5-year period.<sup>43</sup> As can be seen in Graph 44, real annual growth reached 46.7% by December compared to 22.6% six months before. This momentum is due to the significant increase in the growth rate for the risky commercial loan portfolio, which went from a 9.5% real annual growth in June to 54.7% at the end of 2008. Similarly, the real annual increase for the risky mortgage portfolio was up by 7.7 pp in December compared to six months earlier thus reached a growth of 12.7%. In turn, the rise in the risky consumer portfolio was of 41.6% in annual, real terms at the end of the second half of 2008, which, although high, is lower than what was seen six months earlier by 2.5 pp.

Given the greater increase in the risky loan portfolio compared to that of the gross loan portfolio, the portfolio quality indicator (QI) measured as a ratio of the first to the second, showed a perceptible deterioration if compared to what had been seen six months before. In December, 2008, the value of this indicator reached 8.9% for the entire portfolio while in June of the same year, its value was 7.4%. Since the second half of 2007, there has been a continuous worsening of the portfolio quality index (Graph 45). The deterioration of the QI is explained by the rises in the quality indicators for commercial and consumer loan portfolios, which reached levels of 7.6% and 11.7% respectively in December, 2008.

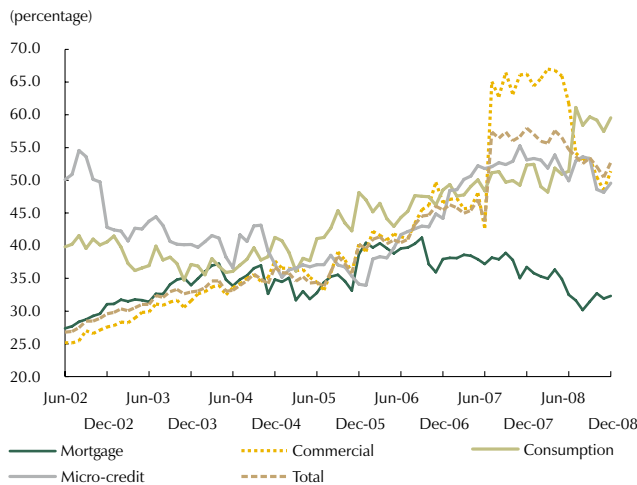
43

A risky portfolio is defined as a set of loans that are not rated A.

These values surpassed the respective levels they had six months before by 1.6 pp.

The return on assets (ROA) of the financial system has remained relatively constant. At the end of 2008, the ROA<sup>44</sup> was 2.5%, close to the average for the last four years (2.55%).

Graph 46  
Coverage indicator  
(loan-loss provisioning/risky loan portfolio)



Sources: Financial Superintendence of Colombia; Banco de la República calculations.

The provisions that the system makes to cover credit risk has been growing in absolute terms over the last few years. At the end of 2008, it was Col\$6.9 t for credit establishments (Col\$4.8 t in 2007, Col\$2.8 t in 2006). Nevertheless, the provisions as a percentage of the risky loans (coverage indicator) diminished. During the second half of 2008, they reached a value of 52.7%, which was lower than the indicator seen a half a year before by 2.0 pp (Graph 46). This fall was a result of the growth of the risky commercial loan portfolio. This was not accompanied by proportional increases in provisions, which made its indicator of loan portfolio coverage fall to 51.4% compared to a level of 61.8% in June, 2008. This indicator is similar to that reported before the credit risk management system (SARC, in Spanish) for the commercial loan portfolio went into force in mid-2007. The portfolio coverage indicator for consumer

loans, in turn, showed a rise that coincided with the SARC taking effect for this loan portfolio. The loan-loss provisions for commercial portfolios rose to 59.5% in December, 2008 while in June, they were 51.4%

The solvency ratio<sup>45</sup> stayed above the decade average (13.4%) for most of 2008. It reached 13.6% in December of that year, well above the regulatory minimum of 9%. Nevertheless, the relationship at the end of the year is 0.3 pp below that in June. In conclusion, the expansion of financial brokerage activities was not restricted by levels of capital.

The March, 2009, *Financial Stability Report* (in printing) gives a more detailed and up-to-date analysis of the different risks that the financial system faces. However, it must be emphasized that the macro-prudential measures adopted by Colombia in the last few years have contributed to reduce the financial system's vulnerability to an external shock.

44 The profitability indicator for the financial system is defined as the ratio between profits and average assets.

45 The solvency ratio is measured as the ratio of technical capital to risk-weighted assets (including market risk), which is used to analyze the capital soundness of the credit establishments.

## E. FOREIGN SECTOR

### 1. Development of the Exchange Rate in 2008

#### a. Nominal Exchange Rate

During 2008, the price of the Colombia peso was determined by international market conditions. The first half of the year was characterized by a marked appreciation together with constant capital inflows as FDI. However, in the second half of the year, the exchange rate reversed its trend and the Colombian peso showed a sharp depreciation primarily because of the deepening of the global economic crisis and the uncertainty in the financial markets. This situation was generalized in the emerging economies and, as will be explained later, it has continued so far into 2009.

Between January and June, 2008, the appreciation of the Colombian peso, which had been seen since the second half of 2006, continued (Graph 47). On average, it had an annual nominal appreciation of 13.5% in this period

compared to the same months in 2007. In fact, the price quote for the peso compared to the dollar showed a reduction of Col\$301.9 in June 2008 compared to that seen in December, 2007, which represented a fall of 15%.

As was explained in greater detail in chapter II of this report, in May, 2008, in response to the dollar momentum, the Banco de la República adjusted the parameters of the capital controls, which had been established a year before. As a result, the mandatory deposit for loan portfolio investments went from 40% to 50% and the minimum two-year stay requirement for FDI capital was imposed. In May, the leveraging limit on financial brokers for transactions in the derivatives market was also raised from 500% to 550%. After that in June, the discount for an early withdrawal of deposits from Banco de la República was raised.

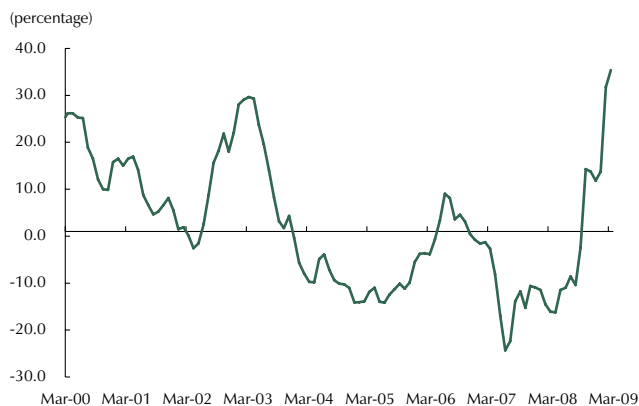
During the first half of 2008 and in response to the high volatility of the peso/dollar price quotes, the auctions were activated to control the volatility of the exchange rate. As a result and using this mechanism, Banco de la República purchased US\$515 m in international reserves between February and June. Likewise, between April and June, they bought US\$450 m by means of options to

Graph 47

#### A. Nominal exchange rate



#### B. Nominal annual devaluation



Source: Banco de la República.



accumulate international reserves. As of June and until the month of October, the intervention was done through direct purchase auctions for a value of US\$1,344 m (Table12).

Table 12  
Purchases and Sales of Foreign-currency by Banco de la República, 2007-2008  
(millions of dollars)

Item	2007 Jan-Dec accumulated	2008											Accumulated as of December
		Jan.	Feb.	Mar.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
<b>Purchases</b>	<b>5,081,9</b>	<b>0.0</b>	<b>232.7</b>	<b>38.0</b>	<b>150.0</b>	<b>401.6</b>	<b>444.3</b>	<b>380.0</b>	<b>440.0</b>	<b>79.9</b>	<b>0.0</b>	<b>2.3</b>	<b>2,381,3</b>
<b>Put options</b>	<b>554.5</b>	<b>0.0</b>	<b>232.7</b>	<b>38.0</b>	<b>150.0</b>	<b>330.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2.3</b>	<b>965.5</b>
For accumulating international reserves	0.0	0.0	0.0	0.0	150.0	150.0	0.0	0.0	0.0	0.0	0.0	0.0	450.0
To control volatility	554.5	0.0	232.7	38.0	0.0	180.0	0.0	0.0	0.0	0.0	0.0	2.3	515.5
<b>Direct purchase   auctions</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>71.6</b>	<b>444.3</b>	<b>380.0</b>	<b>440.0</b>	<b>79.9</b>	<b>0.0</b>	<b>0.0</b>	<b>1,415,8</b>
<b>Discretionary   intervention</b>	<b>4,527,4</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Sales</b>	<b>368.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>234.6</b>	<b>0.0</b>	<b>0.0</b>	<b>234.6</b>
<b>Call options</b>	<b>368.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>234.6</b>	<b>0.0</b>	<b>0.0</b>	<b>234.6</b>
To control volatility	368.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	234.6	0.0	0.0	234.6
<b>National   government</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Net purchases</b>	<b>4,713,0</b>	<b>0.0</b>	<b>232.7</b>	<b>38.0</b>	<b>150.0</b>	<b>401.6</b>	<b>444.3</b>	<b>380.0</b>	<b>440.0</b>	<b>(154.7)</b>	<b>0.0</b>	<b>2.3</b>	<b>2,146,7</b>

Source: Banco de la República.

As was explained in previous reports, the appreciation phenomenon was not exclusive to Colombia, but was seen in the majority of the economies around the world as the product of a weakened dollar and the heavy flow of capital towards emerging economies. That is why the Peruvian and Chilean currencies showed appreciations as strong as the Colombian one (10.4% and 12.5% respectively) between January and June, 2008 and the Brazilian real appreciated even more than the peso (17%) (Table 13). The currencies of developed economies also showed an appreciation compared to the dollar in this period. The cases of the euro (13.1%), the yen (12.6%) and the Canadian dollar (11.3%) are worth mentioning.

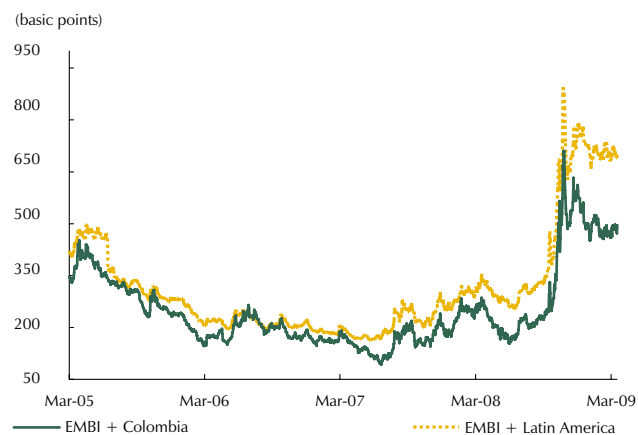
Once into the second half of 2008, the deterioration of the US economic indicators began to affect international markets and increased the uncertainty regarding a world recession. In addition, the bankruptcy of Lehman Brothers and its consequences for the world financial systems generated severe stress for investors and induced an increase in the sovereign debt risk (Graph 48).

Table 13  
Nominal Exchange Rate: Foreign Currency in Comparison to the Dollar <sup>a/</sup>

	Average annual percentage changes			
	2003-2008	January to June, 2008	July to December, 2008	As of March 19, 2009
Colombia	(3.5)	(13.5)	3.1	25.7
Venezuela	11.6	0.0	0.0	0.0
Ecuador	0.0	0.0	0.0	0.0
Mexico	2.5	(3.0)	7.2	33.2
Brazil	(7.3)	(17.1)	6.6	33.6
Euro Zone	(6.9)	(13.1)	0.6	15.0
Peru	(3.0)	(10.4)	(2.5)	10.0
Japan	(2.9)	(12.6)	(11.8)	(12.1)
Chile	(4.4)	(12.5)	13.3	31.4
Canada	(6.2)	(11.3)	11.1	24.5
United Kingdom	(3.1)	(0.2)	18.8	38.1
Argentina	0.4	1.5	1.5	11.9

a/ Deflated with the PPI.  
Sources: Central banks and the Banco de la República.

Graph 48  
EMBI + Colombia and Latin America



Source: Bloomberg.

This situation was reflected in an outflow of capital to United States Treasury bonds. The break in the trend to appreciate the currencies of emerging countries made the Colombian peso depreciate between July and December, 2008 at an average annual rate of 3.1%.

The change in the macroeconomic conditions led the government to revoke the minimum stay requirement for FDI in September, 2008 and exempt the flows for purchasing stocks from the mandatory deposit. The nominal depreciation of the Colombian peso induced the monetary authority to eliminate capital controls in October, while keeping only the leveraging limit on the financial brokers to restrain the exposure risk during the financial turbulence at that time. Moreover, the auction mechanism to control volatility was activated in October and the Bank sold US\$235 m in international reserves.

As can be seen in Table 13, the strengthening of the dollar in the second half of 2008 was a generalized phenomenon and was markedly present in the Canadian and English currencies. The depreciation for these was 11.1% and 18.8% respectively. Except for the Peruvian sol, which appreciated by 2.5%, the Latin American countries witnessed a rise in the dollar price that was even stronger than the rise in the Colombian peso.

Between December, 2008 and February of the present year, the Colombian peso depreciated 13.9% and then during March, it partially corrected that trend and accumulated a year-to-date (up to March 19) depreciation of 4.1%. The performance was accompanied by an appreciation of the domestic public debt securities, as well as a relative stability in the stock market and of the EMBI+ Colombia, which suggests that the recent exchange rate trend was not associated with a deterioration or stronger perception of risk in local assets. What was seen in the first two months of the year was a demand for dollars in the forward market by foreign agents, which contributed to the depreciation of the peso. In fact, upon acquiring these commitments to future sales, the brokers in the foreign exchange market (IFEM) had to buy dollars on the cash market (US\$1.209 m) to cover the exchange risk and exerted pressure on the exchange rate. During this period, Banco de la República sold international reserves for US\$369 m through the auction mechanism to control exchange rate volatility (Table 14).

Table 14  
Purchases and Sales of Foreign Currency by Banco de la República, 2008-2009  
(millions of dollars)

Item	2008 acumulado Jan-Dec	2009		Accumulated up to February
		January	February	
<b>Purchases</b>	<b>2,381,3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Put Options</b>	<b>965.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
For accumulating international reserves	450.0	0.0	0.0	0.0
To control volatility	515.5	0.0	0.0	0.0
<b>Direct purchase auctions</b>	<b>1,415,8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Discretionary intervention</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Sales</b>	<b>234.6</b>	<b>175.0</b>	<b>193.5</b>	<b>368.5</b>
<b>Call options</b>	<b>234.6</b>	<b>175.0</b>	<b>193.5</b>	<b>368.5</b>
To control volatility	234.6	175.0	193.5	368.5
National government	0.0	0.0	0.0	0.0
<b>Net Purchases</b>	<b>2.146.7</b>	<b>(175.0)</b>	<b>(193.5)</b>	<b>(368.5)</b>

Source: Banco de la República.

The depreciation of the peso so far this year has been higher than in other economies in the region. However, when the depreciation is analyzed with respect to the same period for the previous year, the majority of the countries in the region have seen similar performances with depreciations that are over 30% (Table 13). Again, Peruvian currency shows less weakening, a phenomenon which might be explained by the intervention of Peru's Central

Bank in the foreign exchange market. This intervention has amounted to US\$975 m so far in 2009 (up to February 20, 2009).

**b. Development of the real exchange rate**

As the Board has mentioned in past reports and in different publications, the analysis of the implications that the Colombian peso's performance has on the country's competitiveness should be done with the real exchange rate (RER) in mind. This measure incorporates the production cost differentials of the economies by discounting the difference between domestic and foreign inflation from the value of the currency. The RER can be calculated bilaterally for a comparison with each country with which we trade or compete and can be aggregated in a multilateral RER that indicates the country's competitiveness in comparison to the set of trading partners.

In the first place, the analysis of the bilateral RER indices in 2008 reveals that the Colombian peso appreciated compared to the dollar and to the Latin American currencies such as the Mexican one. However, it was depreciated with respect to competitors such as Brazil (7%), Venezuela (10.3%), Peru (2.7%), and Chile (3%).

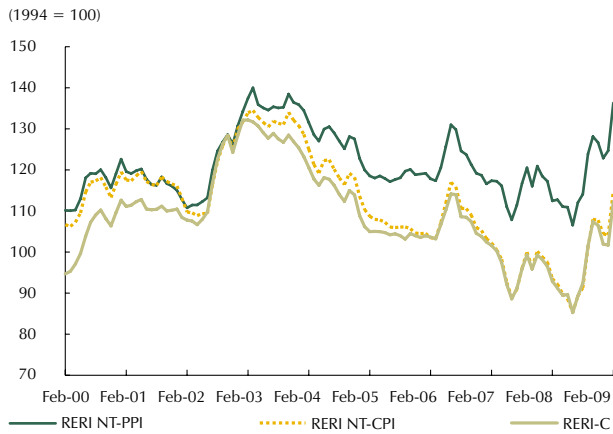
For 2009, the data up to March 19 show a Colombian peso that was depreciated in real terms compared to the majority of the currencies with the cases of Venezuela and Japan being special. The depreciation in comparison to the currencies of these economies reached 52.6% and 37.4% respectively. Its real depreciation compared to the dollar was 8.7%. In contrast, the currency showed a real appreciation compared to the Mexican peso and Brazilian real. Due to the greater impact that the international crisis has had on the prices of those currencies, it will continue to be marked compared to the Canadian and English currencies (Table 15).

Table 15  
Bilateral Real Exchange Rate: Colombian Peso Compared to Foreign Currency <sup>a/</sup>

	Average annual percentage changes			
	2000-2002	2003-2009	2008	As of February, 2009
United States	4.6	(1.1)	(3.4)	8.7
Venezuela	2.3	9.1	10.3	52.6
Ecuador	15.9	(0.2)	(4.5)	25.2
Mexico	8.8	(4.5)	(7.9)	(3.5)
Brazil	3.0	7.4	7.0	(4.0)
Euro Zone	1.4	2.9	(0.4)	5.5
Peru	3.1	0.0	2.7	14.7
Japan	(1.3)	1.3	5.6	37.4
Chile	(3.6)	5.3	3.0	8.3
Canada	3.3	(0.2)	(7.7)	(4.5)
United Kingdom	1.4	(2.5)	(12.9)	(11.8)

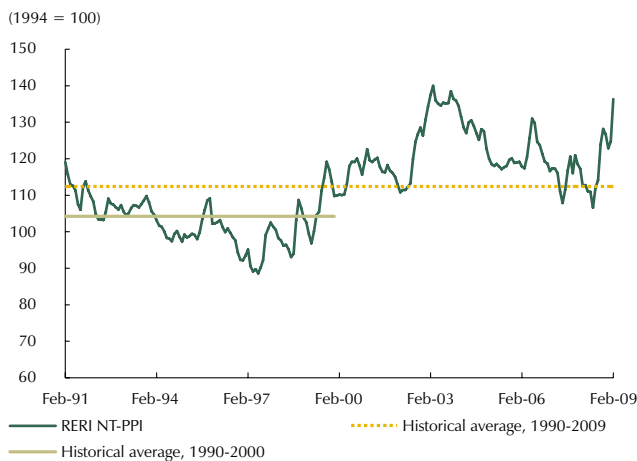
a/ Deflated with the PPI.  
Source: Central banks and Banco de la República.

Graph 49  
Real exchange rate index



Source: Banco de la República.

Graph 50  
Real exchange rate index - PPI compared to its historical averages



Source: Banco de la República.

The Banco de la República traditionally publishes two multilateral, RER indices which are differentiated by the relative costs by which the measurements are made –whether it is PPI or CPI. Furthermore, an index is calculated that evaluates the competitiveness of a group of goods (coffee, flowers, bananas and textiles) in the US market (Graph 49). Although the RERI measured with the CPI and the competitiveness RERI indicated an appreciation of around 1.6% in 2008, the RERI measured with the PPI showed a real depreciation of 0.6% for the same period.

Moreover, the three measurements show a real depreciation between January and February, 2009 which reached 12% for the RERI measured with the PPI, 12.7% with the CPI and 11.5% with the C-RERI. This behavior, mainly due to the nominal depreciation of the exchange rate, made the RER reach historically high levels and be placed above the averages for the ‘90s as well as above those for this decade (Graph 50).

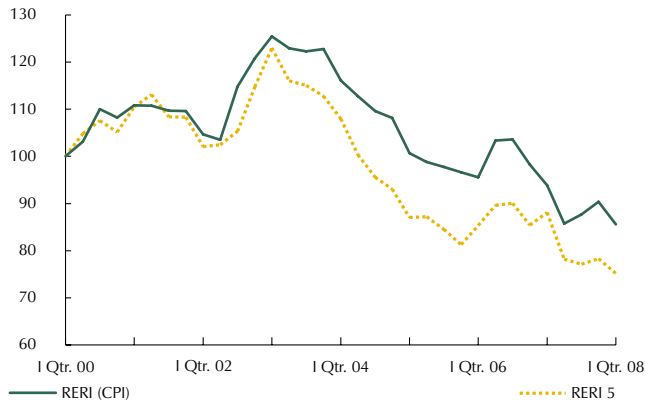
As was mentioned, the RER indices reveal different information depending on the relative prices with which they are estimated and the country with which they are compared. That is how Banco de la República has designed a series of alternative RER measurements in order to develop a better picture of the country’s competitiveness. Some of these measurements involve other types of production cost indicators, i.e., the unit labor cost (ULC) or the GDP deflator. Furthermore, RER indicators in which Colombian export prices are compared to

specific international measurements are used to evaluate in different ways the competitiveness of Colombian producers and exporters<sup>46</sup>.

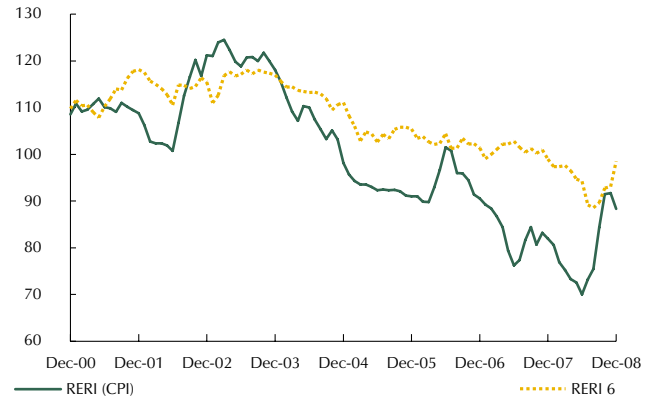
46 RERI 4: Real exchange rate index using the GDP deflator. The GDP deflator is useful since it gives a very broad view of price momentum due to the fact that it covers both tradable and non-tradable sectors. RERI 5: Real exchange rate index deflated with ULC. This is the indicator that best explains the gains and losses of a sector’s competitiveness compared to its international competition. It measures the competitiveness of a country while taking into account the inflation that comes from domestic cost pressures in the labor market since the average salary for a worker, the number of workers in the industry and the industrial production are included in the calculations. RERI 6: Competitive index in Colombia’s export market. The goal is to measure the competitiveness of Colombian exports in the target countries by comparing the price of a basket of Colombian export goods with the import prices in the target countries. RERI 7: Competitive index in the international markets: this measures the competitiveness of Colombian products in the international markets by comparing the price of a basket of Colombian export goods with the prices of other countries’ exports. RERI 8: Competitive indicator in the domestic market: this tries to measure the ability of Colombian products to compete with foreign ones in the Colombian market.

Graph 51  
Real exchange rate index of the Colombian peso compared to other currencies

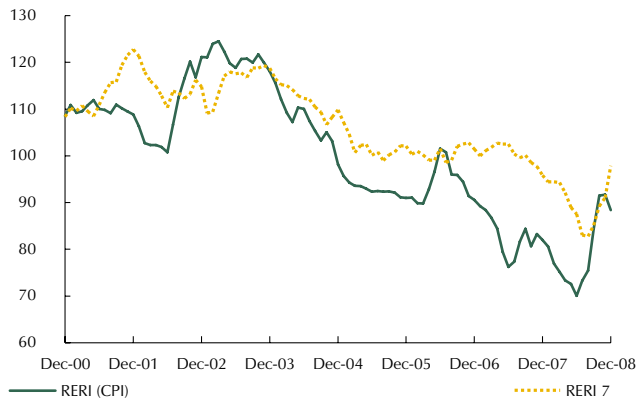
A. Real exchange rate index utilizing the unit labor cost (RERI5) vs. RERI-CPI (I Qtr. = 100)



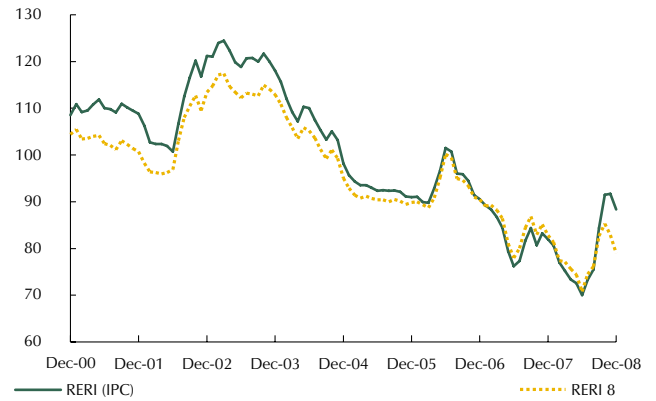
B. Real exchange rate index of competition in Colombia's export markets vs. RERI-CPI (Jan. 2000 = 100)



C. Real exchange rate index of competition in the international markets (RERI 7) vs. RERI-CPI (Jan. 2000 = 100)



D. Real exchange rate index of competition in the domestic market (RERI 8) vs. RERI-CPI (Jan. 2000 = 100)



Source: Banco de la República.

As can be seen in Graph 51, the RER measured with the ULC showed a larger appreciation up to the first quarter of 2008 than that which used the CPI. However, the indicators that try to measure export competitiveness show evidence of a lower real appreciation in the 2006 to 2008 period compared to the RER deflated by the CPI.

### c. Factors that have had an Impact on Currency Performance

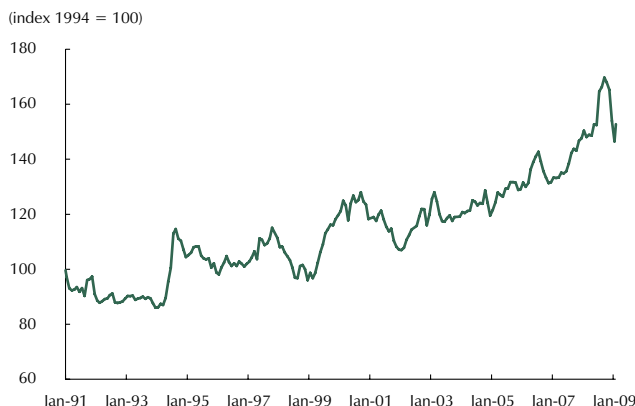
Not only the appreciation momentum of the Colombian currency in the first half of 2008, but also the depreciation seen so far in 2009 are due to the performance of the economies with which Colombia trades and the domestic conditions of the Colombian economy. The trend of the Colombian peso in comparison to the

dollar is related to the dollar's generalized weakening at the beginning of 2008 and its later strengthening once the international crisis deepened.

Likewise, there are other factors that help explain the behavior of the Colombian peso, such as the conditions of capital flows and the prices of export products. In the case of the appreciation in the first months of 2008, a detailed diagnostic was done in the July, 2008 Board of Director's Report to the Congress of the Republic of the variables that determined the nominal and the real appreciation. These variables are related to the factors that affect the relative prices in the economy and resulted in an improvement in the Colombian terms of trade, due to the high international prices, a rise in the country's degree of confidence, some heavy inflows of foreign investment towards Colombia, high income from remittances from workers abroad and an increase in national productivity.

Between July, 2008 and the current point in 2009, the depreciation of the exchange rate has been caused by the agents' expectations of an eventual deterioration in the Colombian economy's fundamentals due to the international crisis. As will be explained in the chapter on the balance of payments, one of the vulnerabilities that the Colombian economy has is the possible decline in income from exports, remittances and FDI capital, as a result of the world economic recession. However, although the prices of export goods have already begun to show signs of a slump in export income, to date there is no clear evidence of a slump like that in financing sources and in fact, the FDI inflows to the country continue at the same momentum.

Graph 52  
Terms of trade <sup>a/</sup>



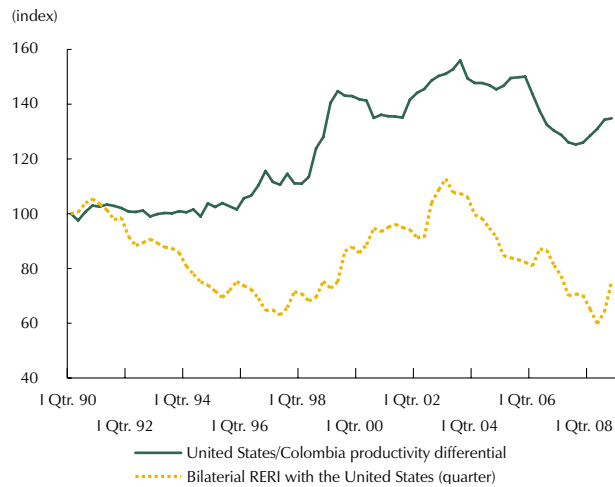
<sup>a/</sup> Calculations based on the PPI. This is defined as the ratio between the index of prices for exported goods and the index of prices for imported goods.  
Source: Banco de la República

The improvement in the terms of trade halted in October, 2008 when the plunge in commodity prices reduced the value of Colombian export goods. In January, they reached levels that had not been seen since mid-2007 (Graph 52). However, in February of the current year, they showed a recovery.

Finally, the competitiveness of a country is not determined only by the production costs, but also depends on the efficiency of the tradable sector. In this respect, increases in the productivity of the export goods sector will be reflected in real appreciations in the exchange rate. As a consequence, a strengthening of the currency is not necessarily a loss in competitiveness but could, on the contrary, be a sample of a gain in competitiveness.

That is the reason why upon analyzing the preliminary calculations of the industry's competitiveness, the increase in the RERI in the last few months has been observed to be accompanied by a loss in productivity in comparison with the United States. Nevertheless, it is necessary to note that this loss is lower than the depreciation seen in the exchange rate until the fourth quarter of 2008 (Graph 53).

Graph 53  
United States/Colombia productivity differential and  
bilateral RERI  
(I Qtr.1990 = 100)



Sources: DANE (MMM) and BLS; Banco de la República calculations.

## 2. Development of the Colombian Balance of Payments in 2008

According to the preliminary estimates, the main results of the country's balance of payments in 2008 were:

- A deficit of US\$6,765 m (2.8% of the GDP) in the current account, which surpassed the previous year's result by US\$928 m (Table 16).
- A surplus of US\$9,551 m (4.0% of the GDP) in the capital and financial account, which was lower than in 2007 by US\$795 m.
- An accumulation of US\$2,638 m in gross international reserves.

Table 16  
Colombia's Balance of Payments (summary) (p)

	Millions of dollars			Percentage of the GDP			Difference (millions of dollars)
	2006 (p)	2007 (p)	2008 (p)	2006 (p)	2007 (p)	2008 (p)	
<b>I. Current account (A + B + C)</b>	<b>(2,983)</b>	<b>(5,837)</b>	<b>(6,765)</b>	<b>(1.8)</b>	<b>(2.8)</b>	<b>(2.8)</b>	<b>(928)</b>
Income	35,119	41,714	50,173	21.6	20.1	20.8	8,459
Expenses	38,102	47,551	56,938	23.4	22.9	23.6	9,387
A. Non-factor goods and services	(1,797)	(3,203)	(2,139)	(1.1)	(1.5)	(0.9)	1,065
Income	28,558	34,213	42,588	17.6	16.4	17.7	8,375
Expenses	30,355	37,416	44,726	18.7	18.0	18.6	7,310
1. Goods	322	(596)	990	0.2	(0.3)	0.4	1,587
Income	25,181	30,577	38,546	15.5	14.7	16.0	7,969
Expenses	24,859	31,173	37,556	15.3	15.0	15.6	6,383
2. Non-factor services	(2,119)	(2,607)	(3,129)	(1.3)	(1.3)	(1.3)	(522)
Income	3,377	3,636	4,042	2.1	1.7	1.7	406
Expenses	5,496	6,243	7,171	3.4	3.0	3.0	928
B. Factor income	(5,929)	(7,865)	(10,138)	(3.6)	(3.8)	(4.2)	(2,273)
Income	1,525	1,860	1,685	0.9	0.9	0.7	(175)
Expenses	7,454	9,725	11,823	4.6	4.7	4.9	2,098
C. Transfers	4,743	5,231	5,512	2.9	2.5	2.3	281
Income	5,037	5,642	5,900	3.1	2.7	2.4	259
Worker remittances	3,890	4,493	4,842	2.4	2.2	2.0	350
Other transfers	1,147	1,149	1,058	0.7	0.6	0.4	(91)
Expenses	293	410	389	0.2	0.2	0.2	(22)
<b>II. Capital and Financial Account (A + B)</b>	<b>2,890</b>	<b>10,347</b>	<b>9,551</b>	<b>1.8</b>	<b>5.0</b>	<b>4.0</b>	<b>(795)</b>
A, Financial Account (1 + 2)	2,890	10,347	9,551	1.8	5.0	4.0	(795)



Table 16 (continuation)  
Colombia's Balance of Payments (summary) (p)

	Millions of dollars			Percentage of the GDP			Difference (millions of dollars)
	2006 (p)	2007 (p)	2008 (p)	2006 (p)	2007 (p)	2008 (p)	
1. Long term financial flows (b + c - a)	7,183	11,466	9,965	4.4	5.5	4.1	(1,501)
a. Assets	1,097	912	2,157	0.7	0.4	0.9	1,245
i. Colombian investment abroad	1,098	913	2,158	0.7	0.4	0.9	1,245
Direct	1,098	913	2,158	0.7	0.4	0.9	1,245
Portfolio	0	0	0	0.0	0.0	0.0	0
ii. Loans	0	0	0	0.0	0.0	0.0	0
iii. Commercial loans	0	0	0	0.0	0.0	0.0	0
iv. Financial leasing	0	0	0	0.0	0.0	0.0	0
v. Other assets	(1)	(1)	(1)	(0.0)	(0.0)	(0.0)	(0)
b. Liabilities	8,328	12,398	12,124	5.1	6.0	5.0	(274)
Direct	6,656	9,049	10,564	4.1	4.4	4.4	1,515
Portfolio	457	387	(278)	0.3	0.2	(0.1)	(665)
ii. Loans	1,248	2,736	1,376	0.8	1.3	0.6	(1,360)
iii. Commercial loans	(88)	116	190	(0.1)	0.1	0.1	74
iv. Financial leasing	55	110	272	0.0	0.1	0.1	162
v. Other liabilities	0	0	0	0.0	0.0	0.0	0
c. Other long term financial movements	(47)	(20)	(2)	(0.0)	(0.0)	(0.0)	18
2. Short term financial flows (b - a)	(4,293)	(1,120)	(414)	(2.6)	(0.5)	(0.2)	706
a. Assets	4,019	3,186	(46)	2.5	1.5	(0.0)	(3,232)
i. Portfolio investment	3,333	993	(188)	2.1	0.5	(0.1)	(1,182)
ii. Commercial loans	402	308	185	0.2	0.1	0.1	(123)
iii. Loans	313	1,510	70	0.2	0.7	0.0	(1,441)
iv. Other assets	(28)	374	(113)	(0.0)	0.2	(0.0)	(486)
b. Liabilities	(274)	2,066	(460)	(0.2)	1.0	(0.2)	(2,526)
i. Portfolio investment	445	1,497	(1,001)	0.3	0.7	(0.4)	(2,497)
ii. Commercial loans	(2)	72	287	(0.0)	0.0	0.1	215
iii. Loans	(716)	441	245	(0.4)	0.2	0.1	(197)
iv. Other liabilities	(1)	56	9	(0.0)	0.0	0.0	(47)
B. Special capital flows	0	0	0	0.0	0.0	0.0	0
<b>III. Net Errors and Omissions</b>	<b>115</b>	<b>204</b>	<b>(149)</b>	<b>0.1</b>	<b>0.1</b>	<b>(0.1)</b>	
<b>IV. Change in gross international reserves <sup>a/</sup></b>	<b>23</b>	<b>4,714</b>	<b>2,638</b>	<b>0.0</b>	<b>2.3</b>	<b>1.1</b>	
(Based on the balance of payments methodology)							
<b>V. Gross International Reserve Balance</b>	<b>15,440</b>	<b>20,955</b>	<b>24,041</b>	<b>9.5</b>	<b>10.1</b>	<b>10.0</b>	

p/ preliminary.

a/ The calculation of the change in international reserves is done based on IMF's Manual V, which recommends not including variations that come from appreciations due to exchange rate and prices in this calculation.

Source: Banco de la República calculations.

**a. Current Account**

In 2008, the current account deficit (US\$6,765 m) was the result of net outflows from factor income (US\$10,138 m) and a deficit in the service balance (US\$3,129 m), which was partially offset for by net income from current transfers (US\$5,512 m) and by a surplus commercial balance (US\$990 m). The commercial surplus came from US\$38,546 m in export income and payments for US\$37,556 m in imports. The annual surplus contrasts with the negative result the year before (US\$596 m).

The rise in exports was mainly due to the noticeable increase in the value of traditional products (US\$5,787 m, 41%) driven by the upswing in the export price for oil and coal. The exports of non-traditional products rose US\$1,927 m (12.7%) mostly due to the effect of the larger demand from countries in the region such as Venezuela (17%) and Ecuador (16%) in the textile, chemical industry and leather and its manufactures sectors. In spite of the slowdown in the last quarter of the year, exports to the US market rose 10.5% compared to 2007.

With respect to imports of goods, in 2008 the value amounted to US\$37,556 m with an annual variation of 20.4% (US\$6,383 m) in comparison to what had been seen a year previously. Based on the international trade classification by economic use or destination (CUODE) of the total purchases made abroad in the period under analysis, 44.2% corresponded to intermediate goods and raw materials, 37.1% to capital goods and 18.7% imports of consumption goods. The momentum for intermediate goods stands out with an annual growth of 25% (US\$3,173 m).

The foreign trade deficit for services in 2008 was higher than in the previous year by US\$522 m. It should be noted that in the overall value of foreign trade in services, the activities related to transportation, trips, entrepreneurial services and communication stand out because they generated close to 90% of the income and outlays.

Meanwhile, the amount for factor income was higher than what had been reported a year previously by US\$2,273 m. This tendency is mainly explained by the transfers of profits and dividends made by foreign companies, especially due to the larger profits of multinational companies that export oil and coal, as a result of the higher export prices.

The deficit in the services balance and in the factor income item was partly offset by the net income from current transfers which amounted to US\$5,512 m. These transfers mainly correspond to income from workers' remittances, which totaled US\$4,842 m, with an annual variation of 7.8% (US\$350 m). These resources represented 2% of the GDP and 9.6% of the current income of the balance of payments.

## ***b. Capital and Financial Account***

At the end of 2008, the capital and financial account had a surplus of US\$9,551 m, which was lower than in 2007 by US\$795 m when the Colombian economy received capital flows of US\$10,347 m (Table 17). The lower capital inflows in 2008 were mainly due to the decline in income from net foreign debt which fell from US\$2,175 m in 2007 to US\$1,138 m in 2008.

Table 17  
Colombia's Balance of Payments, Capital and Financial Account (p)  
(millions of dollars)

	2007 (p)	2008 (p)	Change in dollars
Capital and financial account (A + B + C)	10.347	9.551	(795)
<b>A. Direct investment (i - ii)</b>	<b>8.136</b>	<b>8.406</b>	<b>270</b>
i. Foreign Investment in Colombia	9.049	10.564	1.515
ii. Colombian investment abroad	913	2.158	1.245
<b>B. Total Foreign Debt</b>	<b>2.175</b>	<b>1.138</b>	<b>(1.036)</b>
i. Public sector (a - b)	2.218	(308)	(2.526)
a. Liabilities	2.900	(11)	(2.912)
Portfolio investment	597	(1.090)	(1.687)
Loans	2.327	1.096	(1.231)
Commercial loans	(18)	(12)	6
Financial leasing	(6)	(5)	1
b. Assets	682	296	(386)
ii. Private sector (a - b)	(43)	1.446	1.489
a. Liabilities	2.459	1.102	(1.357)
Portfolio investment	1.287	(188)	(1.475)
Loans	850	525	(326)
Commercial loans	205	489	283
Financial leasing	116	277	161
b. Assets	2.502	(344)	(2.846)
<b>C. Other capital flows</b>	<b>36</b>	<b>7</b>	<b>(29)</b>

p/ preliminary.  
Source: Banco de la República calculation.

In 2008, the financing structure for the financial account of the balance of payments was primarily centered on net capital inflows associated with US\$10,564 m in FDI income. These were partly offset by the outflow of capital to acquire direct Colombian investments abroad (US\$2,158 m). Also private sector operations related to the acquisition of new debt (US\$1,102 m) in loans, commercial loans and financial leasing stand out.

During 2008, the FDI was US\$1,515 m higher than what had been seen a year before when US\$9,049 m was received. By economic activity, the main receivers of foreign investment were the oil industry, coal industry, financial activity and trade. The foreign resources were also channeled, although to a

lesser degree, towards manufacturing industries and to the telecommunications and transportation sector.

In 2008, the direct investment flows directed towards the oil sector represented 35% of the total resources (40% in 2007) and loss participation with respect to the investment in other sectors, which consisted of 65% of the total (60% in 2007). Colombians acquired US\$2,158 m in shares of stock in foreign companies, especially in those related to fuel distribution, oil exploration and the cement industry in some countries in the Latin American region and the United States.

In the period under analysis, the net foreign debt of the Colombian economy rose US\$1,138 m due to different factors:

*i. The rise in the private sector's net debtor position (US\$1,446 m), which was equivalent to greater foreign debt (US\$1,102 m) and a reduction in their possession of foreign assets (US\$344 m).*

The most important rise in the private sector liabilities, due to foreign debt, was driven primarily by:

- US\$489 m in import financing.
- US\$525 m in new debt was contracted for long term loans. These resources were acquired specifically to develop free trade zones, improve port infrastructure and to strengthen productivity capacity.
- The grant of financial leasing to modernize and broaden mainly passenger airline transportation service translated into an increase of US\$277 m in capital flows for this item.

*ii. Private foreign assets declined US\$344 m primarily due to the liquidation of portfolio investments. Most of these are due to the shift in the pension funds' investment portfolios, which reduced their positions in foreign securities in exchange for TES.*

*iii. The US\$308 m reduction in public sector net foreign liabilities.* Last year liabilities in public foreign debt were lowered by US\$11 m, while their assets rose US\$296 m. The development in the liabilities was the result of contracting US\$1.096 m in new debt, disbursements granted primarily by the multilateral banking system and offset by net payments of US\$1.090 m for government securities (TES) and bonds issued in the international markets.

*iv. Acquisition of US\$296 m in foreign assets, which were for investment by public entities, primarily non-financial ones, especially Ecopetrol.*

### *c. International Reserves*

At the end of 2008, the overall surplus resulting from the balance of payment transactions generated an accumulation of US\$2,638 m in gross international reserves in Banco de la República. These were equivalent to: net purchases of foreign currency (US\$2,147 m), net returns of US\$558 m on the international reserves and other Banco de la República transactions for -US\$68 m. When the appreciations because of price and exchange rate (US\$448 m) are considered, the variation in gross reserves rises to US\$3,086 m.

### **3. The Colombian Foreign Sector and the Transmission of the International Financial Crisis to the Countries' Balance of Payments**

As was explained in detail at the beginning of this report, since the second half of 2007 and more obviously in the last quarter of 2008, a financial crisis struck in the United States and extended to the financial markets in Europe and Asia. International liquidity tightened, credit got more expensive and confidence levels dropped. As a consequence, in 2008 and year-to-date in 2009, the crisis has been transmitted to other levels of economic activity and to a growing number of industrialized countries, and thus reversed in the rising trend in prices for oil, food and other commodities. The lower worldwide demand for these commodities and their low prices have had an impact on producer countries in Asia and Latin America.

In Colombia, the first impacts were felt in the country's foreign accounts in the form of lower income from current operations, especially exports of goods and workers' remittances. The current deficit in the balance of payments went from 2.2% of the accumulated GDP in the January-September 2008 period to 2.8% at the end of that year. At the same time, the Colombian economy had access to flows of foreign financing in the last quarter that were 36% lower than those received between June and September, 2008.

In general, the degree of an economy's openness determines its level of exposure to changes in the international environment,<sup>47</sup> but the level of vulnerability depends on a variety of factors among which the following stand out: i) the fact of a country being a net debtor or creditor compared to the rest of the world; ii) the ability to sustain the current account balance; iii) the degree to which the destination of exports is diversified; iv) the fact of being a net exporter or importer of food and energy; v) the relative importance of remittances and the

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<sup>47</sup> It should be mentioned that in spite of the high growth momentum recorded in the trading of goods between 2000 and June, 2008, Colombia does not show a high degree of openness in the Latin American context. The ratio of exports and imports to GDP in December of the current year was 17.8% and 18.5% respectively while in Chile, the coefficients were 44.6% and 31.4%, in Argentina they were 21.6% and 19.5% and in Mexico, 28.9% and 29.9%.

FDI as stable instruments to finance current expenditure; vi) the solvency of the financial system; vii) the ability to sustain the fiscal accounts and the level of public debt; and viii) the levels of inflation and inflationary expectations.

Depending on the situation for each country with respect to this set of factors, the effects of the world crisis will manifest themselves with different intensity. Nevertheless, its effect falls directly on the economies' foreign income (mainly due to the fall in prices for commodities and the lower foreign demand) and its access to financing resources in the short term. A later effect would be registered on the outflow of resources (imports and factor income) and long term financing of the economy.

*a. Possible Immediate Impacts*

The net effect of the economic and financial crisis at the international level on Colombia's balance of payments will depend on the magnitude of the impact on income generating items and access to new foreign financial flows needed to meet the rising pace of outflows. For the current account, the most important income generating items are exports of goods and current transfers, workers' remittances in particular.

*i. Exports of Goods*

Exports of goods are the most vulnerable element since they are exposed to the lower international prices for commodities (especially oil) and to the lower demand abroad as a result of the slower growth of our main trading partners (particularly the United States and Venezuela). They are also exposed to the application of balance of payments protection policies and tariffs being imposed such as, for example, those decreed by Ecuador.<sup>48</sup>

The high concentration of our exports in limited markets and products constitutes a factor that accentuates the country's vulnerability abroad. In fact, close to two-thirds of the total export growth in dollars in 2008 (25.5%) was because of the higher value of exports sent to four countries: Venezuela, the United States, Ecuador and Peru. Likewise, regarding products, traditional

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48 Based on the estimates done by the Ministry of Foreign Trade using data from 2007, the measure could affect 35% of the total exports to Ecuador this year and would have an impact on all of the Colombian companies that do business in that market. It must be emphasized that the degree of exposure to the Ecuadorian market is low. Establishing quotas is the method that will have the most effect on exports (25% of the sales to Ecuador in 2007) and would have an impact on the 22% of the companies that export to Ecuador.

exports represented more than 54.6% of the total and among these, oil represented 59.5%.<sup>49</sup>

Thus, to the degree to which prices for commodities remain low and the fall in our main trading partners' demand is maintained, it is probable that income from foreign sales will continue to report a downward trend. The depth of this impact will depend on the intensity of the world crisis, its duration and the ability of Colombian exporters to diversify their markets, although this adjustment process could tend to be in the medium run, rather than in the short term.

#### *ii. Current Transfers and Workers' Remittances*

Income from current transfers has become an important source of revenue for the country's current account since it represents 7.9% of its total income in 2008. At the same time, it is another of the items that is highly sensitive to changes in the economic conditions in the countries that have received Colombian immigrants. In Colombia, they are made up of workers' remittances (80%) and unilateral transfers from organizations and foreign governments for programs such as Plan Colombia and not-for-profit organizations (20%).

Workers' remittances have been one element of stable income. However, since the end of 2008, their role has diminished due to the fact that this income showed an annual quarterly decline of 11.6% and ended the year with an annual increase of 9.5% (half of what was seen in 2007). This decline was the result of the economic deterioration in the United States and Spain where 73% of the remittances come from. For 2009, a greater reduction in remittance income is anticipated given the permanent increase in unemployment rates and loss of wealth associated with devaluation of housing in those countries.

On the microeconomic level, it is calculated that the decline in remittance flow could affect 2.9% of Colombian households.<sup>50</sup> Its relative importance in relation to the disposable household income, which in 2007 was 3%,<sup>51</sup> will also be lower. This impact will be felt mostly in the departments of Valle,

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49 Agencies like ECLAC, for example, have done comparative analyses of some of the characteristics of Colombian exports such as their level of sophistication, the level of diversification per product and by markets with respect to five non-Latin American countries (Korea, Spain, Ireland, Malaysia and Portugal) and six Latin American countries (Argentina, Brazil, Chile, Mexico, Peru and Venezuela). Based on this information the conclusion is drawn that only 19% of the Colombian exports in 2006 involved a high aggregate value according to the Sanjaya Lall methodology (2000). In terms of the concentration of exports in three products, the ECLAC exercise shows that 36% of Colombia's foreign sales are concentrated in three products. When the concentration of exports in three countries is considered, the coefficient in the case of Colombia was 57%, which revealed a high vulnerability to changes in demand from those countries.

50 DANE demographic census

51 Bank calculations based on information from the balance of payments (Banco de la República) DANE national accounts.

Antioquia, Cundinamarca (in Bogota in particular) and Risaralda (where 72% of remittance income is concentrated). The depreciation of the peso, nevertheless, will contribute to raising the purchasing power of pesos for those who receive remittances.

In turn, income from transfers related to support granted to Colombia by governments and international organizations, as well as NGOs will suffer a setback due to the lower expenditure capacity in the main economies where this support comes from.

*iii. Income from non-Factor Services*

This item contributes close to 8% of the total income in the current account. In order of importance based on their share of the total income from services, tourism (45%), transportation (32%) and others (23%) are emphasized. Income generated by offering these services to the rest of the world is highly dependent on the changes in exports of goods and in passengers and in international tourist activity, which have shown significant reductions since the end of 2008. In the case of the tourism balance, the income is derived not only from passenger transportation but also from their expenditures in Colombia. These account for 6% of the income in the current account. A reduction in the income associated with this service is to be expected, since 60% of the travelers come from the United States, Canada and Europe.

*iv. Capital Flows<sup>52</sup>*

The financial origin of the current global economic crisis has resulted in difficulties in getting access to the loan market and paying higher interest rates.

Recent studies<sup>53</sup> have found that financial shocks in Latin America<sup>54</sup> have become more frequent and had a stronger impact on the GDP than terms of trade shocks. In fact, these studies have found that in periods of negative terms of trade shocks the weighted effect for the whole region was an average fall in domestic expenditure equivalent to 2.64% of the GDP.

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52 The inflow of new capital under the modality of foreign direct or portfolio investment is understood as an international financial flow, as is also the granting of foreign loans by banks or international credit agencies.

53 See Daniel Titelman, Esteban Perez, Rodolfo Minzer, "Comparison of the dynamics and impacts of financial shocks and terms of trade in Latin America in the 1980-2006 period," CEPAL, June, 2008.

54 The method consists of segregating the financial flows and the terms of trade in a tendential and a cyclic component and build, for each country, confidence intervals of the cycle deviations with respect to the tendency.



Between 1980 and 2006, the negative financial shocks meant a relative fall in the domestic expenditure on the order of 6.99% of the GDP (weighted average). The largest economies in the region such as Argentina, Brazil and Chile had shocks that fluctuated between 2% and 9%, while Colombia had exhibited shocks that were equivalent to 3% of the GDP on average.

It should be emphasized that unlike the '90s, the main sources for financing the current account deficit in Colombia recently have been direct investment flows (FDI) and to a lesser degree, foreign credit and portfolio investment flows. Based on the international investment position, contracting foreign loans, which accounted for 56% of the total liabilities, was the main source for foreign financing at the beginning of the current decade, while the capital contributions through FDI represented 26% of the total. Gradually this latter share rose and in 2008, the debt with foreign direct investors (FDI) is the main component of foreign liabilities for the Colombian economy with 58% of the total.

The lower level of foreign debt becomes an advantage in situations abroad characterized by scarcity of resources and a high depreciation since servicing the foreign debt becomes more expensive and is an additional pressure on the exchange rate. At the same time, the balances of direct investment measured in dollars lose value in depreciation situations and the profits remitted decrease insofar as domestic generation of profits falls. This is due to a lower pace of economic activity with which the current deficit in the balance of payments is alleviated.

#### a) Foreign Investment

At the beginning of the decade, the flow of FDI accounted for 2.6% of the GDP. This situation changed drastically between 2004 and 2007 when the coefficient of direct investment to GDP rose to 7.1%. Based on data from the UN Conference on Trade and Development (Unctad), in spite of the fact that between 2004 and 2006 the accumulated flow of FDI to Colombia reached an average that was above that of Latin America (30% of the GDP in 2006) and was close to the levels of countries like Costa Rica (31.7% of the GDP) and Thailand (33% of the GDP), its level is still low in relation to recipient economies in Europe and Asia and to countries in the region that are successful in attracting FDI such as Chile. It should be pointed out that the FDI resources that have entered the country in the last few years have been associated with infrastructure projects, especially in the oil and mining sectors as well as the communication and trade sectors, which are not complete yet. It is to be expected that the resources necessary to finance these projects were appropriated opportunely from their home offices by the subsidiaries in Colombia. If so, very accentuated drops in the flow of these FDI resources will not be seen, at least this year.

Unlike the FDI which reacts more to structural types of factors,<sup>55</sup> flows of portfolio investment are guided mainly by short term profitability and risk factors. Thus, greater foreign versus domestic return is a disincentive to portfolio investment in the country. Given that portfolio investments in Colombia on the part of foreign investors are concentrated mainly in short term securities, particularly fixed income investments (TES), the risk of significant capital outflows related to their liquidation is not high since their value did not exceed US\$1.500 m as of December, 2008. An additional risk of outflows for portfolio investments abroad could come from Colombians who decide to shift their portfolios to investments in foreign currency. However, the main agents in this market are pension funds, which have limits on investments in foreign assets based on the Financial Superintendence norms.

#### b) Foreign Debt

For this decade, foreign loans have been the second source for financing the current deficit in the balance of payments and its importance has diminished since 2000. In 2008, it accounted for US\$42,063 m (17.3% of the GDP) which was a reduction in its participation to around 28% of the total. It should be noted that with respect to the private sector, the drop in the size of the debt has been seen since the second half of 2007. Among a number of factors, this was one response to the imposing of controls on foreign debt and portfolio investment established by Banco de la República and government in May, 2007.

Foreign debt falls mainly on the public sector (US\$25,101 m, which is approximately 60%) and to a lesser degree on the private sector (US\$16,962 m, 40%). For this sector 87.8% of the debt is for a period of more than a year. Given the policy of advance financing for servicing the public foreign debt that the government is responsible for, which Colombia has been applying for the last few years, the access to these resources which were required for 2009 was procured in January of this year. It is hoped that, as a result, the phenomenon of foreign credit tightening due to the international financial crisis will not affect public sector financing this year.

From the perspective of foreign liabilities, and taking into account the foreign debt structure by installment and type of creditor, most of the vulnerability in access to new loans will be faced by the productive sector of the economy, which will have to resort to scarce and more costly commercial loans. Moreover, since the private sector debt is mainly denominated in dollars, it will face a rise in the servicing costs if there is more depreciation. However, when the debt repayment relationship to

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55 The factors that influence international flows of capital can be grouped into four categories: i) the global and regional economic situation and that of the economy the flows come from; ii) the factors that influence the decision to invest such as the factor endowment, availability of technology, the size of the market, consumer preferences, differentiation of products and possible scale economies; iii) a country's competitive capacity to attract foreign investment and iv) public policy and incentives that receiver economies provide.

international reserves is considered, it can be seen that its value is greater than 2, which indicates that there is sufficient hedging for that service in terms of convertible assets. Nevertheless, valuation of the non-financial private sector's real exposure to changes in the international context and to a higher rate of depreciation, requires the consideration of the possible coverage of these risks through the possession of foreign assets and hedging transactions for foreign exchange risk. A more detailed analysis of this phenomenon is given in Box 2.

c) Other Capital Flows and International Reserve Changes

In foreign crisis situations that are characterized by an increase in the risk perception, it is possible that the preference for assets denominated in foreign currency will rise. This will cause liquidations in local currency positions.

In the last quarter of 2008, the balance of the gross international reserves in the hands of Banco de la República came to US\$23.672 m, which represents 7.6 months of imports, 0.3 times the M3 position, 3.7 times the current account deficit and 2.37 times the monthly value of foreign debt repayments. The value of these indicators shows that Colombia has sufficient international reserves to face a possible short term foreign liquidity crisis.

In 2008, the existence of a high level of international reserves and low currency mismatches made it possible to adjust the pressure of demand for foreign currency through price or, in other words, through depreciation of the exchange rate and not by means of quantities (loss of reserves). In fact, the sales of international reserves made between October and December, 2008, once the more severe symptoms of the international financial crises had appeared, were only US\$234.6 m, an amount that is below what was sold by various countries in the region. During the same period, Mexico sold US\$15.200 m in reserves (7.6% of the total reserves) and Brazil sold US\$23,100 m (12% of the total reserves).

*c. Possible Later Impacts*

As was pointed out, there is a second set of variables that will adjust in response to the intensity and length of the international crisis and to the impact that this may have on the pace of domestic activity. This is the case of importing goods for which the main determining factors are the growth of domestic demand and the level of the exchange rate. That is the reason the demand for imported goods will be lower if the slowdown in Colombian economic growth and a faster rate of devaluation of the peso compared to the dollar continues.

Another item in the current account that shows high sensitivity to the performance of the local economy and to international prices for commodities, i.e., coal, oil and ferronickel, is the profits of companies that are recipients of FDI. These are the ones that would alleviate the pressure on the balance of payments

current account if they should fall, due to the lower remittance transfers and reinvestment of profits.

It should be pointed out that it is not clear the effect of an increase in the foreign interest rates on foreign debt interest payments since, although the financial conditions of the new loans are more costly, their impact on the interest flow will depend on the new contracts' relative importance for the total debt balance and on how this balance develops. It could even diminish in the case that no significant access to new loans is achieved.

In conclusion, the possible impact of the current international financial crisis on the Colombian economy would be reflected in the short term in lower foreign income, primarily from exports and workers' remittances, due to the fall in the export prices of commodities, the lowering of foreign demand for them and the rise in unemployment in the United States and Europe.

Likewise, the uncertainty and the global financial imbalances could limit access to foreign financing of the economy although, so far, this has not been clearly manifested. It is possible that the use of this instrument would be more costly, especially for all of the high value transactions associated with international banking loans to the private sector.

Later effects will depend to a large degree on the length and depth of the impact of the crisis and on the adjustment measures the economy as a whole adopts. In a longer term perspective, economic activity could see lower product growth rates which would mainly affect payments abroad for imports of goods and services, as well as the transfer of profits from companies that have foreign capital to their home offices abroad.

#### **4. Outlook for the balance of payments for 2009**

Keeping in mind all of what has been said, this section shows the projection of the country's balance of payments for 2009 and the evaluation of the indicators of foreign vulnerability and their international comparison.

For 2009, Banco de la República calculates that the deficit in the current account may be around US\$7,715 m (3.6% of the GDP), which is explained by a significant commercial imbalance. The goods account will go from a surplus of US\$990 m (0.4% of the GDP) in 2008 to a deficit of US\$2,142 m (-1.0% of the GDP) in 2009. This greater deficit will come not only from the worsening of the terms of trade, particularly the international prices for products such as crude oil, coal, and coffee, etc. but also from the lower demand for our non-traditional exports by Venezuela, the United States, Ecuador and the European Union (Table 18). Even if a significant drop in the total imports for the country is included in the calculation (17%), this will not manage to offset the projected fall in total exports (25%).

Table 18  
Colombia's Balance of Payments

	2006 (pr)	2007 (pr)	2008 (pro)	2009 (proj)	2006 (pr)	2007 (pr)	2008 (pro)	2009 (proj)
	(millions of dollars)				(as a percentage of GDP)			
<b>I. Current account</b>	<b>(2,983)</b>	<b>(5,837)</b>	<b>(6,765)</b>	<b>(7,715)</b>	<b>(1.8)</b>	<b>(2.8)</b>	<b>(2.8)</b>	<b>(3.6)</b>
<b>A. Non-factor goods and services</b>	<b>(1,797)</b>	<b>(3,203)</b>	<b>(2,139)</b>	<b>(4,964)</b>	<b>(1.1)</b>	<b>(1.5)</b>	<b>(0.9)</b>	<b>(2.3)</b>
1. Goods	322	(596)	990	(2,142)	0.2	(0.3)	0.4	(1.0)
2. Non-factor services	(2,119)	(2,607)	(3,129)	(2,822)	(1.3)	(1.3)	(1.3)	(1.3)
B. Factor income	(5,929)	(7,865)	(10,121)	(7,341)	(3.6)	(3.8)	(4.2)	(3.5)
C. Transfers	4,743	5,231	5,495	4,590	2.9	(2.5)	2.3	2.2
<b>II. Capital and Financial Account</b>	<b>2,890</b>	<b>10,347</b>	<b>9,551</b>	<b>7,310</b>	<b>1.8</b>	<b>5.0</b>	<b>4.0</b>	<b>3.4</b>
A. Private sector: net direct investment and other capital flows <sup>a/</sup>	3,275	8,128	9,216	4,034	2.0	3.9	3.8	1.9
B. Public sector <sup>b/</sup>	(385)	2,218	336	3,276	(0.2)	1.1	0.1	1.5
<b>III. Errors and Omissions</b>	<b>115</b>	<b>204</b>	<b>(149)</b>	<b>0</b>	<b>0.1</b>	<b>0.1</b>	<b>(0.1)</b>	<b>0.0</b>
<b>IV. Change in Gross International Reserves</b>	<b>23</b>	<b>4,714</b>	<b>2,638</b>	<b>(405)</b>	<b>0.0</b>	<b>2.3</b>	<b>1.1</b>	<b>(0.2)</b>

(pr) preliminary; (pro) provisional; (proj); projected

a/ Takes into account net flows of direct foreign investment, portfolio and net foreign debt operations.

b/ As of 2008, Ecopetrol operations are not included.

Source: Banco de la República.

In another area, it is projected that the factor income item will be less negative by about US\$2,800 m than in 2008 (thus reflecting the lower transfers of profits by foreign companies that are working in the country). Also, as was explained in the previous section, regarding the current transfers, a decline of close to 15% is projected. This will be mainly the workers' remittance component, as a result of the worsening economic conditions in the US and Europe, which are the main recipients of Colombian immigrants.

Although it is clear that the international financial crisis has generated problems with liquidity and access to foreign financing, which limits capital flows towards developing economies, there is still a high degree of uncertainty about its true impact on the Colombian economy. In fact, to date, Colombia has not experienced difficulties in getting access to international financial markets. Based on the Bank's projections, the current account deficit projected for 2009 will be financed in part using the foreign credit resources contracted by the public sector. These will amount to US\$3,276 m and will be supplied for the most part by the multilateral banking system. It is also calculated that, in net terms, the resources that the private sector will receive could be as much as US\$4,034 m. These include foreign investment inflows to projects in sectors such as oil, coal, trade and communications, etc. They also include decisions by Colombian companies to invest in various projects abroad.

In addition to their return the calculation of the change in gross international reserves for 2009 takes into account the transfer of US\$320.4 m in profits to

the government and sales of foreign currency to the market through auction mechanisms up to February, 2009.

## **5. Indicator of Foreign Vulnerability**

The strategy of accumulating international reserves adopted by the Bank recognizes the importance of having a suitable level of international liquidity to deal with outflows of capital from the country. These could be caused by factors such as a deterioration in the terms of trade, financial panics or financial crises in neighboring countries. In this context, maintaining a suitable level of international reserves also helps to improve confidence in the country and, therefore, to reduce the probability of a stronger impact from foreign crises.

To determine if a country's international reserves are enough to prevent and fight external shocks, various indicators of foreign vulnerability are used. The most important measures are the ratio between international reserves and monetary aggregates and the ratio between the reserves and debt payments made over the next twelve months. When the reserves are compared to monetary aggregates such as M2 or M3, what is sought is the ability of the economy to respond to outflows of capital provoked by speculative attacks. In turn, the reserve indicator over short term foreign debt, which includes current account deficit, shows the country's ability to meet its loan obligations to the rest of the world under an extreme scenario in which access to international financing has been completely closed. In general, international markets think that low values for these indicators may be warning signals on the foreign vulnerability of these economies.

Table 19 shows the development, in the Colombian case, of different indicators for net international reserves from 2003 to 2008. The indicators for groups A and B are above 1, which is the level recommended by the IMF. It can also be seen that all of the indicators for these groups have shown a substantial improvement during the period. However, the ratios for group C have remained stable and are at acceptable levels. The relationship, in particular, of net reserves over months of import goods, one of the most used measures, stayed close to eight months.

When various indicators of Colombia's international liquidity are compared to other countries in the region, it can be seen that the reserve ratio over GDP is set at an intermediate level close to Brazil, Mexico and Chile (Graph 54). The growth and level of this relationship stands out in the case of Peru, where the banks can take deposits in dollars and their deposits in the central bank against these deposits in foreign currency may be counted as required reserves.

Another indicator of international liquidity such as reserves measured by months of goods imports shows that Colombia has a relatively higher position than that of Chile and Mexico and a lower one than that of Peru and Brazil (Graph 55).

Table 19  
Indicators of Colombian International Reserves

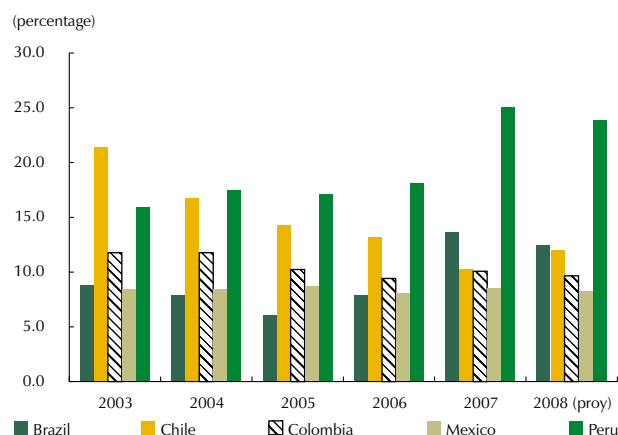
	2003	2004	2005	2006	2007	2008 (pr)	2009 (proj)
<b>Balance</b>							
<b>Net international reserves (millions of dollars)</b>	10,916	13,536	14,947	15,436	20,949	24,030	23,624
<b>Indicators</b>							
<b>A. Repayment of foreign debt indicator</b>							
Repayment of foreign debt (millions of dollars)	10,068	8,688	13,068	13,189	10,237	10,203	12,080
Net reserves / current-year foreign debt repayments	1.08	1.56	1.14	1.17	2.05	2.36	1.96
Net reserves / next year's foreign debt repayments	1.26	1.04	1.13	1.51	2.05	1.99	1.87
<b>B. Adequate foreign liquidity position</b>							
NIR/(debt servicing, current year)	0.87	1.21	0.93	0.96	1.56	1.79	1.54
NIR/(debt servicing, coming year)	0.98	0.85	0.93	1.15	1.56	1.57	1.49
NIR/ (debt repayment for the current year + current account deficit, current year)	0.99	1.41	1.00	0.95	1.30	1.42	1.19
NIR/ (debt repayment for the coming year + current account deficit, coming year)	1.14	0.91	0.92	0.96	1.23	1.21	1.30
<b>C. Other International Reserve Indicators</b>							
NIR by months of imports	9.9	10.2	8.9	7.5	8.1	7.7	9.1
NIR/M3 (percentage)	36.3	33.1	30.1	26.1	27.0	29.2	28.8
NIR/GDP <sup>a/</sup>	11.9	11.9	10.3	9.5	10.1	10.0	11.1

(pr) preliminary; (proj) projected.

a/ Estimated GDP in dollars for 2008 corresponds to an estimate.

Source: Banco de la República calculations.

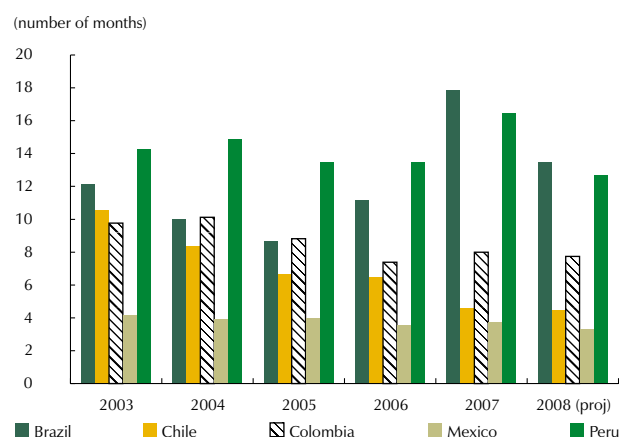
Graph 54  
International reserves/GDP



(proj) projected.

Sources: central banks; The Economist Intelligence Unit and Banco de la República

Graph 55  
International reserves as months of imports of goods

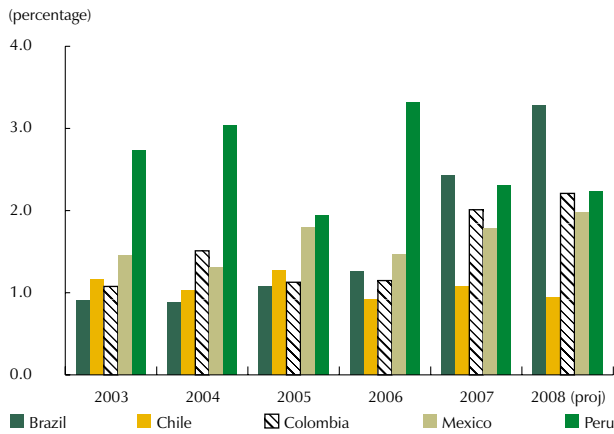


(proj) projected.

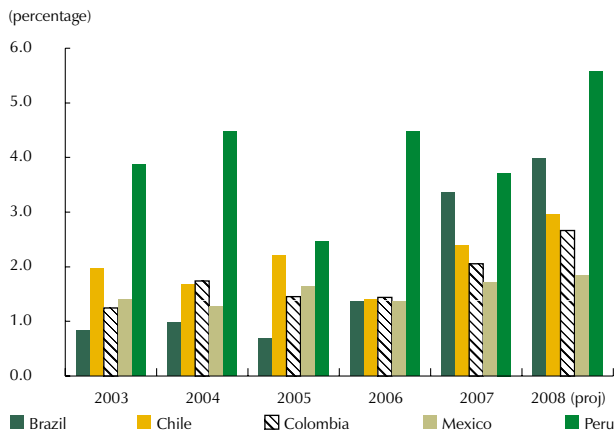
Sources: central banks; The Economist Intelligence Unit and Banco de la República

Graph 56

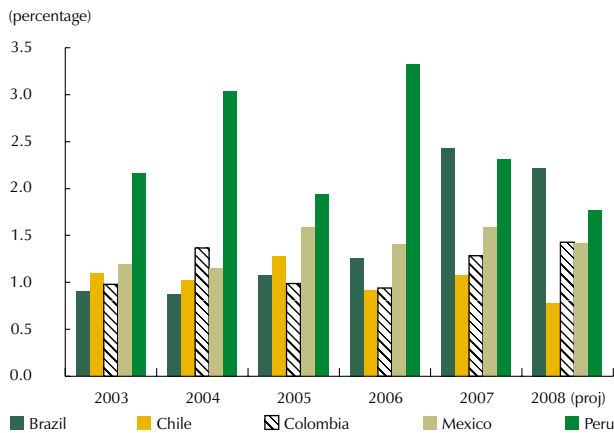
A. International reserves/debt repayment



B. International reserves/foreign debt servicing



C. International reserves/(deficit in current account + debt repayment)



(proj) projected.  
Sources: central banks; The Economist Intelligence Unit and Banco de la República.

In the international reserves relationship to debt servicing and to current account deficit plus debt repayment, Colombia's indicators are above those of Chile and Mexico and below those of Peru and Brazil (Graph 56).

F. FISCAL POLICY

1. Fiscal Results for 2008

At the end of 2008, accounting for the consolidated public sector showed a fiscal deficit of Col\$678 bn (0.1% of the GDP), which was below the target established by the government (0.8% of the GDP). In general terms, this result is the product of a 2.3% deficit of the GDP in the national central government's finances. This is offset by a 2.4% surplus of the GDP in the fiscal operations of the decentralized public sector. Banco de la República and Fogafin had surpluses of 0.3% and 0.1% of the GDP respectively in their fiscal balances. The costs of restructuring the financial system amounted to 0.3% of the GDP (Table 20).

The finances of the CNG showed a deficit of Col\$11,067 bn (2.3%) of the GDP, a level that is similar to the value seen in 2007. The total income rose 16.0% and within this, the taxes grew 11.2%. The domestic VAT and the tax on equity were the most dynamic levies with upswings of 18% and of 173.3% respectively. Collection of the latter tax was carried out by payment in three installments due to the postponement of one of the payments that corresponded to 2007. Income tax showed a growth of 1.8% largely as a consequence of the reduction of the rate and use of various benefits by the taxpayer. Capital resources rose 58.3% thanks to the transfer from the FAEP, which amounted to Col\$2,226 bn, as well as the payment of Ecopetrol dividends, which were Col\$4,177 bn (Table 21).

The total expenditures of the CNG grew 12.9% and came to Col\$86.131 bn. While the expenditures for operating costs and investment rose 11.1% and 25.5%, the transfers for interest on debt dropped 7.3%. Among the operating costs, personnel



Table 20  
Consolidated Public Sector  
Fiscal Balance for 2007 and 2008

Item	Billions of pesos		Percentage of GDP	
	2007	2008 (pr)	2007	2008 (pr)
<b>A. Total non-financial public sector (NFPS) (1 + 2)</b>	<b>(4.322)</b>	<b>130</b>	<b>(1.0)</b>	<b>0.0</b>
<b>1. National government <sup>1/</sup></b>	<b>(11.613)</b>	<b>(11.067)</b>	<b>(2.7)</b>	<b>(2.3)</b>
<b>2. Subtotal decentralized sector <sup>2/</sup></b>	<b>7.291</b>	<b>11.197</b>	<b>1.7</b>	<b>2.4</b>
Electric Power	427	302	0.1	0.1
Emcali (Cali Public Utilities Co.)	180	33	0.0	0.0
EMP (Medellin Public Utilities Co.)	96	(93)	0.0	(0.0)
FAEP (Oil Stabilization Fund)	691	(1.907)	0.2	(0.4)
Other entities	419	2.521	0.1	0.5
Social Security	6.368	5.140	1.5	1.1
Regional and local	(891)	5.201	(0.2)	1.1
B. Quasi-fiscal balance of Banco de la República	1.641	1.306	0.4	0.3
C. Fogafin Balance	318	502	0.1	0.1
D. Cost of financial restructuring	(1.161)	(1.270)	(0.3)	(0.3)
E. Adjustments	809	(1.345)	0.2	(0.3)
<b>F. Total consolidated public sector (A + B + C + D + E)</b>	<b>(2.714)</b>	<b>(678)</b>	<b>(0.6)</b>	<b>(0.1)</b>

(pr) preliminary.

1/ The floating debt does not include the change in the budgeted reserves.

2/ Not including the balances for Ecopetrol nor Isagen.

Note: deficit (-) or surplus (+).

Source: Ministry of the Treasury and Public Credit.

expenses grew 11.9% and transfers, 12.6%. The performance of the latter item was influenced by the General Allocation System (SGP, in Spanish), which amounted to Col\$18,814 and by the transfers for pension payments that reached Col\$16,644 bn including a transfer for Col\$5.785 bn in favor of the Institute of Social Security (ISS). The investment payments, which totaled Col\$10.437 bn were intended for the acquisition of military equipment as well as infrastructure and social development projects.

The CNG deficit, which included the costs of the financial system restructuring came to Col\$12.338 bn during the year. The financing was done by using credit resources, transferring Banco de la República's profits and the privatization of some entities and companies. The net domestic debt reached Col\$7.026 bn as a result of Col\$22,852 bn in disbursements and Col\$15,826 bn in debt repayments. Net foreign debt amounted to Col\$2,502 bn with disbursements of Col\$5,866 bn and debt repayments of Col\$3.364 bn. Resources from privatizing entities were Col\$2,052 bn. These were mainly from the sale of Banco Popular and the electricity companies in Caldas and Quindío. Finally, the transfer of Banco de la República's profits totaled Col\$1.415 bn. With the

Table 21  
National Government, Fiscal Balance for 2007 and 2008  
(billions of pesos)

	2007	2008 (pr)	Growth 2007-2008
<b>I. Total Revenue (A + B + C + D + E)</b>	<b>64,705</b>	<b>75,064</b>	<b>16.0</b>
A. Tax revenue	57,866	64,349	11.2
Income tax	24,770	25,217	1.8
Domestic VAT	14,897	17,650	18.5
Foreign VAT	8,481	9,414	11.0
Duty	4,260	4,292	0.8
Gasoline tax	1,212	1,288	6.3
Financial Transactions Tax	2,990	3,200	7.0
Equity	1,171	3,200	173.3
Wealth	86	89	2.9
B. Non-tax	383	649	69.5
C. Special funds	637	894	40.4
D. Capital resources	5,781	9,154	58.3
Financial returns	627	851	35.9
Financial surplus	4,565	5,398	18.2
Other	589	2,905	392.9
E. Accrued earnings	38	17	(56.0)
<b>II. Total Expenditures (A + B + C + D + E) <sup>a/</sup></b>	<b>76,318</b>	<b>86,131</b>	<b>12.9</b>
A. Interest	15,016	13,923	(7.3)
Foreign	3,859	3,662	(5.1)
Domestic	11,158	10,261	(8.0)
B. Operating expenses	53,411	59,345	11.1
Personnel services	8,780	9,822	11.9
Overhead expenses	3,911	3,674	(6.1)
Transfers	40,719	45,849	12.6
C. Investment	8,316	10,437	25.5
D. Net loan	257	171	(33.4)
E. Accrued payments	(682)	2,255	(430.6)
<b>III. Deficit (-) or surplus (+) (I - II) <sup>b/</sup></b>	<b>(11,613)</b>	<b>(11,067)</b>	<b>(4.7)</b>
Cost of financial restructuring	1,161	1,270	9.4
<b>IV. Financing (A + B + C + D + E)</b>	<b>12,774</b>	<b>12,338</b>	<b>(3.4)</b>
A. Net foreign credit	(875)	2,502	(385.9)
Disbursements	2,503	5,866	134.4
Repayments	3,378	3,364	(0.4)
B. Net domestic credit	1,463	7,026	380.1
Disbursements	18,579	22,852	23.0
Repayments	17,115	15,826	(7.5)
C. Banco de la República profits	1,186	1,415	19.3
D. Privatizations	2,579	2,052	(20.4)
E. Other	6,483	(636)	(109.8)
<b>V. Deficit as a percentage of GDP</b>	<b>(2.7)</b>	<b>(2.3)</b>	

(pr) preliminary.

a/ The floating debt does not include the change in the budgeted reserves.

b/ Financial restructuring costs excluded.

Source: Ministry of the Treasury and Public Credit.

financing transactions described, the balance of the CNG's gross debt stood at 35.7% of the GDP at the end of 2008, a percentage that is similar to that seen in 2007 (35.9% of the GDP).

With respect to the decentralized public sector, it is necessary to emphasize the performance of social security, which generated a surplus of 1.1% of the GDP and the behavior of the regional and local public sectors that also generated a surplus balance of 1.1% of the GDP. Regarding this last sector, the accumulation of surpluses in the financial system is noticeable. This could suggest a lag in carrying out territorial investment projects and the generation of windfall income from royalties for crude oil that is extracted.

## **2. Financial Plan for 2009**

For 2009, the fiscal deficit target for the consolidated public sector was set at 1.8% of the GDP.<sup>56</sup> This percentage was defined keeping in mind the adverse factors associated with the international economic crisis and the need to maintain a moderately counter-cyclical policy that would not damage the sustainability of public debt. In comparison to the medium-term fiscal framework presented in the middle of last year, the target that was announced means increasing the deficit by approximately 0.6% of the product, especially with the lower momentum expected in collecting national taxes. From the sector point of view, a deficit of 3.2% of the GDP is estimated for the CNG and a surplus of 1.2% of the GDP for the decentralized sector. The costs of financial restructuring was 0.2% of the GDP and Banco de la República and Fogafin had surplus balances of 0.2% and 0.1% of the GDP respectively<sup>57</sup> (Table 22).

The CNG finances registered a 10.8% rise in income and of 15.4% in expenditures. Tax collections rose 9.9% with an estimated growth of 14.7% in income and 12.3% in domestic sales. The increase in tax revenues is tied to the good performance in the petroleum sector in 2008 and, basically, to the higher payment of this levy by Ecopetrol. Likewise, capital income showed a 21.8% rise due to the transfer of US\$394 m in resources from FAEP and the transfer of Ecopetrol profits, which were an estimated Col\$8.000 bn for the year.

The CNG expenses that are projected for 2009 are showing a growth of 6.1% in interest and 22.4% in operating costs. With regards to operating costs, personnel costs rose 13.5% and transfers, 26.2%. Within the latter item, the SGP will be Col\$21,354 bn with a growth of 13.6% and the transfer for

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56 The financial plan for 2009 was presented in the Confis consultant document 03, February 16, 2009. At the time this report was presented to Congress, the government announced an increase in the consolidated fiscal deficit target to 2.3% of the GDP.

57 The projected surplus for Banco de la República corresponds to a calculation done by the Ministry of the Treasury done in January, 2009 that does not coincide with the bank's projection.

Table 22  
Consolidated Public Sector, Fiscal Balance for 2008 and 2009

	Billions of pesos		Percentage of GDP	
	2008	2009 (p)	2008	2009 (p)
<b>A. Total non-financial public sector (NFPS) (1+ 2)</b>	<b>130</b>	<b>(10,217)</b>	<b>0.0</b>	<b>(2.0)</b>
<b>1. National government</b>	<b>(11,067)</b>	<b>(16,299)</b>	<b>(2.3)</b>	<b>(3.2)</b>
<b>2. Subtotal Decentralized sector</b>	<b>11,197</b>	<b>6,082</b>	<b>2.4</b>	<b>1.2</b>
Electric Power	302	231	0.1	0.0
Emcali (Cali Public Utilities Co.)	33	257	0.0	0.0
EMP (Medellin Public Utilities Co.)	(93)	(61)	0.0	0.0
FAEP (Oil Stabilization Fund)	(1,907)	(845)	(0.4)	(0.2)
Other entities	2,521	1,197	0.5	0.2
Social Security	5,140	4,484	1.1	0.9
Regional and local	5,201	819	1.1	0.2
B. Quasi-fiscal balance of the Banco de la República <sup>a/</sup>	1,306	1,129	0.3	0.2
C. Fogafin Balance	502	650	0.1	0.1
D. Cost of financial restructuring	(1,270)	(1,085)	(0.3)	(0.2)
E. Adjustments	(1,345)	0	(0.3)	0.0
<b>F. Total consolidated public sector (A + B + C + D + E)</b>	<b>(678)</b>	<b>(9,523)</b>	<b>(0.1)</b>	<b>(1.8)</b>

(p) projected.

a/ This figure is that projected by the Ministry of the Treasury and Public Credit.

Note: Deficit (-) or surplus (+).

Source: Ministry of the Treasury and Public Credit.

pensions will register Col\$20,403 bn with an increase of 22.6%. It should be noted that the Nation's transfer to the Institute of Social Security (ISS), which was done to help with the payment of pensions, will total Col\$7,400 bn. Among the outlays for transfers, an entry of Col\$5,100 bn is included to help with the cost of the fuel subsidy generated in 2008. Investment costs which amounted to Col\$10.375 bn were intended primarily to acquire military equipment and to carry out infrastructure projects.

The financing of the CNG deficit will fall on the credit resources and privatization operations. Net foreign credit is estimated at Col\$4,068 bn with disbursements of Col\$6,707 bn and debt repayments of Col\$2,639 bn. In addition, net domestic financing will reach Col\$5,366 bn, which results from comparing disbursements of Col\$19,669 bn to debt repayments of Col\$14,303 bn. The value of the privatizations is estimated to be Col\$4,441 bn of which, Col\$3,000 bn come from the sale of Isagen and Col\$1,100 bn from the sale of the electricity companies. The transfer of Banco de la República profits will total Col\$800 bn.

Regarding the decentralized public sector, the surplus, which is 0.9% of the GDP, from the social security sector and the FAEP deficit, which is 0.2% of the GDP, should be emphasized. The latter comes from the transfer of resources to the government as mentioned previously.

## Box 1 THE NEW DANE CONSUMER BASKET AND ITS IMPLICATIONS

Since January this year, consumer inflation is being estimated through a new Consumer Price Index (CPI). Therefore, the objective of this box is to point out the main changes included in the new DANE consumer basket (DANE, CPI-08), which uses December 2008 = 100 as the comparative base and to describe the possible implications for inflation momentum and other economic variables.

### How the increase in the cost of living is estimated

The increase in the cost of living for the average household can be estimated monthly by the CPI. By means of an income-and-expenses survey, DANE identifies the spending structure (most consumed articles and their share in the spending) of a representative family. Afterwards, while gathering information from different sources, it does a monthly follow-up to check the prices of the consumer basket. The weighted sum of these prices makes up the total CPI, and its monthly, annual or year-to-date percentage variation is known as consumer inflation.<sup>1</sup>

### The most noticeable changes in reference to the past basket

DANE updates the CPI every ten years by international recommendation. The previous consumer basket dates from December 1998 and was based on the 1994-1995 income-and-expenses survey done by DANE. In contrast, the current one encompasses the consumption preferences from the General Household Integrated Survey (GEIH in Spanish) done in 2006-2007.<sup>2</sup> Among the main changes that were added, the following are emphasized: the geographical scope of its coverage was broadened, new articles were introduced, the weighting structure was modified and the transportation and communications group was split.

The prior basket covered thirteen cities<sup>3</sup> while the current one includes 24 and those added are: Riohacha, San Andrés, Valledupar, Santa Marta, Quibdó, Popayan, Armenia, Tunja, Ibagué, Sincelejo and Florencia. The new CPI grew from 405 articles to 521 and the following are important: soymilk, Chinese rice, orthodontics, homeopathic consultation, sex enhancers, prepaid medicine, payments to geriatric care homes and daycare centers, EPS and ARS monthly payments (HMO type health insurance), gym fees, payment additional to subsidy for hospitalization, postgraduate fees, condominium management fee and digital devices (IPod, mp3, mp4, and other). Finally, basic spending corresponds to the minimum possible division of the CPI<sup>4</sup> and this figure increased from 176 to 181.

The other changes are summarized in Table B1.1. First of all, there was a change from eight to nine expenditure groups because the transportation and communications aggregate

Table B1.1  
Comparison of Expenditures and Weighting

	CPI-1998		CPI-2008
Food	29.5	Food	28.2
Housing	29.4	Housing	30.1
Clothing	7.3	Clothing	5.2
Health	4.0	Health	2.4
Education	4.8	Education	5.7
Entertainment	3.6	Entertainment	3.1
Transportation and communication	13.5	Transportation	15.2
		Communication	3.7
Other expenses	7.9	Other expenses	6.4

Source: DANE

1 For a further and more precise explanation, see: DANE (2008), Consumer Price Index (CPI) Methodology, preliminary version, at [http://www.dane.gov.co/files/investigaciones/fichas/metodologia\\_IPC-08.pdf](http://www.dane.gov.co/files/investigaciones/fichas/metodologia_IPC-08.pdf).

2 The General Household Integrated Survey contains, besides the income-and-expenses survey, information about employment conditions and demographic features.

3 Bogotá, Cali, Medellín, Barranquilla, Bucaramanga, Manizales, Pasto, Pereira, Cartagena, Montería, Villavicencio, Cúcuta y Neiva.

4 The basic spending can be made up of an article or a set of expenditures. The idea of basic spending becomes more precise when specific household consumption is given in more detail. For example, the "pastusa" and "sabanera" potatoes are two articles but each is included in the basic household consumption of potatoes.

was split in two. Second, while housing, transportation and education took up larger shares of the basket, the others declined. The higher weight of housing is explained by the spending on public utilities because fees have been growing for some time. This increase has been higher than that of the other prices in the DANE consumption basket. Likewise, the increase in the international price of gasoline in recent years raised the cost of transportation for the consumer. Also the rise in the weight of education can be explained by more expensive private school monthly fees.

It is important to clarify that the experts, and the market in general, were expecting that food would have a lower weight in the consumption basket. This expectation was unfulfilled because in recent years—in Colombia and worldwide—the portion of the family income set apart for food did not decline significantly due to the following factors: the spike in international food prices, the transfer of productive resources from food-producing agriculture to bio-fuel production and the negative impact of weather change upon agricultural output.

### Why the CPI basket should be updated

Updating is an international practice that allows the changes in the consumer spending pattern to be incorporated and methodological improvements to the CPI measurement to be introduced. Particularly, in international literature,<sup>5</sup> it is accepted that updating the consumer basket implies the correction of different biases in the composition and carrying out of spending, which tend to distort the inflation estimate. The bias created by new articles appears when the old CPI does not include items that have recently entered the market with either high consumption or spending share. The store bias takes place when the old sample of CPI information sources does not take into account new competitive stores, for instance a new hypermarket. The bias of quality changes

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5 For reference see J. Hausman (2003), "Sources of Bias and Solutions to Bias in the Consumer Prices Index", *Journal of Economics Perspectives*, vol. 17, # 1.

arises when the same amount is paid for goods of superior quality or those with upgraded features compared to the past (e.g. computers). The substitution bias occurs because the CPI calculation does not take into account the fact that the buyers can purchase cheap items in place of expensive ones or buy on sale. The presence of these biases tends to cause an overestimate in the cost-of-living increase.

### What the new CPI Implies

The recent update of the DANE consumer basket allows a sizable portion of the biases in the CPI calculation that cause overestimates to be corrected. Based on the pioneer studies in Colombia by Caicedo (2000),<sup>6</sup> and Langebaek and Caicedo (2007),<sup>7</sup> it can be concluded that the total bias for 2008 was 46 bp (basic points). This means that the inflation seen for 2008 was not 7.67% but 7.21%. The size of this bias is low compared, as a ratio of the CPI inflation, with the results for the United States: Colombia's hardly reached 6% of the 2008 inflation in comparison to 16% for the United States. It is important to clarify that the previous downward correction to consumer inflation could only be verified by assuming that all the biases that were part of the old basket were entirely corrected by means of the new CPI revision.

Updating the consumer basket is not just a statistical exercise to fine-tune the cost-of-living estimate. It also involves purging the CPI of biases in order to refine the calculation of countless economic variables that are real, have a high impact and which are updated with inflation such as income, rent, wages, subsidies, financial reports, many corporate contracts, mortgage interest rates, Treasury bond prices (TES) and corporate debt certificates.

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6 Édgar Caicedo (2000), "Biases of the CPI Calculation: The Colombian Case," *Ensayos sobre Política Económica*, num. 38, Banco de la República.

7 Andrés Langebaek and Édgar Caicedo (2007), "CPI Calculation Bias: New Evidence for Colombia," *Borradores de Economía*, num. 435, Banco de la República.

## Box 2 CURRENCY EXCHANGE EXPOSURE OF THE COLOMBIAN NON-FINANCIAL PRIVATE SECTOR IN 2008

Unexpected depreciation causes the companies' financial condition to become more vulnerable when there are significant exchange disparities, which create imbalances in both their cash flow and their equity accounts. Specifically, the depreciation reduces the firm's equity when its exposure in foreign currency (*f/c*) is negative and the liabilities (*L*) in *f/c* exceed the assets (*A*) in *f/c*. Also, the decreased equity (collateral) may drive the banks to raise the interest rate they charge firms.

The damaging effects of high negative exposure can be partially reduced when the firm receives foreign currency through exports, or when it uses hedging operations to protect itself from currency exchange risk.<sup>1</sup> Cowan *et al.* (2004, 2005 and 2007) have proposed different exchange vulnerability indexes regarding, for instance, the sensitivity of operational profits to depreciation and the association with foreign exchange mismatches.<sup>2</sup>

This box analyzes the degree of exchange exposure that the Colombian, non-financial sector had for December, 2008. The first part gives a global overview of this sector with regards to assets and liabilities in terms of *f/c*,<sup>3</sup> *L/A* ratio, currency exchange hedging operations and flow of exports. The information contained in the statistics on the country's international investment position and the bank reports on its portfolio in *f/c* are used to set this estimate.

The second part analyzes the sector results from a sample of 1,055 companies that have reported their foreign financial transactions related to debt and portfolio investments to Banco de la República, as well as their liabilities in *f/c* with local banks. At the end of December, 2008, that sample of companies represented 50.5% of the debt in *f/c*, 33.4% of the foreign assets, 89.3% of the exchange hedging and 36% of foreign trade operations for the whole sector. The final section presents some general considerations.

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1 These are contracts made by the companies that are intended to counteract the exchange risk of one currency with respect to another, and this guarantees the payment for transactions at a pre-agreed exchange rate.

2 A broader explanation of these studies can be found in "Exchange Risk for Manufacturing Companies in Chile," "Exchange Risk for Non-financial Companies in Chile," and in "Exchange Risk Development and Its Effects, 1995-2004" published by Central Bank of Chile and the Superintendent of Banks and Financial Institutions of Chile.

3 This includes foreign debt operations with banks abroad and with Colombian Banks in foreign currency.

### Global Overview of the Non-Financial Private Sector

Column A in Table B2.1 shows the foreign assets of this sector divided by type. Column B sums up the debt in *f/c* based on the contracting method. Column C indicates the difference between assets and liabilities (*A - L*) and column D, the ratio between both variables (*L/A*).

*Liabilities in f/c.* As of December 2008, the non-financial private sector had a total of US\$17,477 m in liabilities in *f/c*, of which 80% was foreign debt and 20% was indebtedness to local banks in *f/c*. The full amount of foreign debt (US\$14,390 m) equaled 31% of the total foreign debt for the country and 85% of the foreign debt for the private sector.

As to the type of credit, 61.2% (US\$10,676 m) of the liabilities in *f/c* come from loans and financial leasing, 35.6% (US\$6,213 m) from commercial loans granted by international banks and providers as well as local banks, and the remaining 3.2% from financing through portfolio operations.

*Foreign Assets.* As of December 2008, it was estimated that the non-financial private sector was holding US\$8,796 m in foreign assets, of which 37.4% were portfolio investments, 36% were loans and 26% were commercial credit given to the international buyers by Colombian exporters.

*Liabilities/Assets (L/A) ratio.* Overall, Column C in Table B2.1 shows that the value of the liabilities is 1.98 times the assets. While assets in *f/c* rose to US\$8,796 m in December, 2008, liabilities represented US\$17,447 m thus showing an imbalance of US\$8,651 m. The (*L/A*) ratio is reduced to 1.67 when the foreign financing from leasing operations of goods (aircraft equipment, telecommunications, etc.), all of which could serve as collateral for the loan, is excluded from liabilities in *f/c*.

*Foreign trade and currency exchange hedging.* Throughout 2008, the agents that reported their foreign debt transactions and debt to local banks in *f/c* to Banco de la República exported US\$10,884 m and imported US\$17,579 m in goods. The major trade flow was generated by manufacturing companies, followed by international trade firms.

With regards to the exchange hedging operations, at the end of December 2008, the "forwards" trade carried out by the non-financial private sector rose to US\$2,403 m. At the sector level, currency exchange hedging operations were mainly done by communication and transportation companies (62%) and manufacturing firms (31%).

Table B2.1  
Non-financial Private Sector, Overall Panorama of Assets and Liabilities in f/c  
(December, 2008)  
(millions of dollars and number of times)

	Assets (A)	Liabilities (B)	Foreign exchange exposure	
			Amount (A - B) (C)	Times (B/A)
1. Commercial loans	2,328	3,156	(828)	1.36
2. Financial leasing	n.a.	2,729	(2,729)	n.a.
3. Loans	3,170	7,947	(4,777)	2.51
4. Portfolio	3,298	558	2,740	0.17
<b>5. Total assets and liabilities abroad (1 + 2 + 3 + 4)</b>	<b>8,796</b>	<b>14,390</b>	<b>(5,594)</b>	<b>1.64</b>
6. Debt with the local financial system in foreign currency (commercial loans)	n.a.	3,057	(3,057)	n.a.
<b>7. Total assets and liabilities in foreign currency (5 + 6)</b>	<b>8,796</b>	<b>17,447</b>	<b>(8,651)</b>	<b>1.98</b>
<b>8. Total assets and liabilities in foreign currency excluding financial leasing</b>	<b>8,796</b>	<b>14,718</b>	<b>(5,922)</b>	<b>1.67</b>

Note: Estimate based on data on Colombia's international investment position and information from Banco de la República's Department of International Foreign Exchange.  
n.a.: not applicable.  
Source: Banco de la República.

### Sector Analysis for a Sample of Companies

It is possible to get information concerning assets and liabilities in f/c and also for foreign trade and exchange hedging operations from a sample of 1,055 companies. This group of companies is responsible for 57.7% of the non-financial private sector foreign debt, 16.7% of the debts in f/c with local banks, 33.4% of foreign assets, 35.5% of foreign trade operations and 89% of currency exchange hedging operations (Table B2.2).

By the end of 2008, the 1,055 analyzed firms reported assets of US\$2.944 m in f/c and liabilities of US\$8.821 m in f/c, which meant a currency exchange exposure of US\$5.877 m with an L/A ratio of 3. By excluding the leasing debt, the exposure would be reduced to US\$3.594 m and the L/A ratio to 2. The exchange hedging amounted to US\$2.160 m and the exports to US\$8.726 m (up to November). In other words, the sum of hedging and exports for this group of companies almost doubled the amount of bank exposure. The analysis of the sector results shows that:

1. The companies having the highest absolute level of exposure in f/c are found in the air transportation and communication sectors. Additionally, this subgroup of companies recorded the highest assets and liabilities in f/c as well as in currency exchange hedging. The L/A ratio in f/c for these companies is 2.6, which means that the assets would cover less than half of the liabilities. These firms get foreign financing by means of financial leasing of capital equipment for air transportation and telecommunication. If those

liabilities are excluded (US\$1.854 m), by the end of 2008, their exchange exposure would be reduced to US\$178 m, 1.14 times below their hedging level.

2. The industrial companies (559) could also become affected negatively in a scenario of accelerated depreciation. Their L/A ratio in f/c is 2.1 (US\$1.582 m), which could be largely related to their significant volume of currency exchange trade. Their imports rose to US\$7.638 m last year, their sales abroad to US\$5.490 m and their currency exchange hedging operations totaled US\$777 m.
3. Another group of companies that shows a substantial level of exchange imbalance is the one made up of international trade firms (292). They recorded US\$4 in liabilities in (f/c) per dollar in assets. The exchange exposure of these firms is linked to their need for financing in (f/c) to market imported goods (US\$2,372) and/or exports (US\$1.482 m). In this case, the exchange exposure could be reduced through the sale prices for their imports in the local market and through their income in f/c from their sales abroad.
4. The exchange exposure of companies in the mining and quarrying sector showed an imbalance of US\$563 m, which is equivalent to an L/A ratio of 27.5. From January through November last year, these firms received US\$1,406 m for their exports—mainly coal. As of the end of December 2008, they had not reported hedging operations.



Table B2.2  
Foreign Exchange Exposure of a Sampling of Non-financial Private Sector Companies, December, 2008  
(millions of dollars and number of times)

Sectors	Assets f/c  (a)	Liabilities f/c			Foreign exchange exposure		Foreign exchange hedging	Exports	Imports	Number of companies
		Foreign (b)	Local banks (c)	Total (b) + (c)	Amount (a) - ((b) + (c))	Times ((b) + (c))/(a)				
Agriculture, hunting, forestry and fishing	10	30	1	31	(21)	3	1	286	87	42
Mines and quarries (including coal)	21	580	4	584	(563)	27.3	0	1.406	190	19
Manufacturing	1.085	2.239	428	2.667	(1.582)	2.1	564	5.490	7.638	559
Electricity, gas and water	37	460	0	460	(422)	12.3	9	0	21	8
Construction	16	9	1	9	7	0.6	1	10	28	11
Commerce, restaurants and hotels	256	995	54	1.049	(793)	3.9	90	1.482	2.372	292
Transportation, storage and communication	1.248	3.267	13	3.281	(2.032)	2.6	1.137	9	2.145	59
Auxiliary financial services	247	704	11	715	(469)	2.9	9	40	77	51
Community services	25	25	0	25	0	1.0	3	2	18	14
<b>Total</b>	<b>2.944</b>	<b>8.309</b>	<b>512</b>	<b>8.821</b>	<b>(5.877)</b>	<b>2.8</b>	<b>1.815</b>	<b>8.726</b>	<b>12.578</b>	<b>1.055</b>

Source: Superintendent of Financial Institutions; Banco de la República calculations.

- The companies in the gas, electricity and water sector had an exposure of US\$422 m in f/c and an L/A ratio of 12.3. This exposure could generate imbalances in their financial balance sheet due to the fact that they do not carry out foreign trade operations (exports) and do not keep significant levels of exchange hedging.
- The highest levels of L/A ratio are observed in the following sectors: mining and quarrying (27.3); gas, electricity and water (12.3); and commerce, restaurants and hotels (3.9). The lowest levels are in construction (0.6), community services (1) and manufacturing (2.1).

### General Considerations

By December 2008, the overall exchange exposure for the non-financial, private sector had risen to US\$8,651 m

and the L/A ratio in f/c was close to 2. In spite of this, when leasing is deducted from liabilities, the exposure is reduced to US\$5,922 m and the L/A ratio to 1.67. This imbalance could be covered by exchange hedging operations (US\$2,288 m) and exports (US\$10,884 m).

According to the sample of analyzed companies, those that have the highest levels of exposure in f/c and that may be unprotected in the current scenario do business in transportation, communications and trade. It should be noted that the air transportation and communications companies have the chance to curtail their high exposure by returning the capital equipment financed through leasing, thus reducing their liabilities.

Finally, it should be pointed out that the firms that produce and market tradable goods and services and that pay their debt in f/c might be partially covered, to the degree they are able to transfer their exchange exposure through higher sale prices in the local and foreign markets.

### Box 3 COLOMBIAN PUBLIC FINANCES AND THE RECENT OIL PRICE SHOCK

The upswing in the international oil prices for the 2003-2008 period generated a flow of fiscal income favorable to several public entities in Colombia. Among them, the national government, the territorial entities and the Fondo de Estabilización Petrolera (FAEP, Oil Stabilization Fund) stand out. A similar situation was experienced by other countries that produce and export commodities and that were able to improve their fiscal situation due to the higher income flow. This process took place in an environment of great macroeconomic volatility, especially because of the appreciation of the real exchange rate.

Generally, an oil price shock or that of any other export commodity impacts the performance of economies through different channels. The first is the currency exchange channel, which is affected by a sudden inflow of foreign currency that tends to appreciate the real exchange rate. The second relates to the income effect associated with the improvement of the terms of trade and is manifested by a rise in the consumption level. Finally, the third macroeconomic transmission channel is the fiscal one, which expresses itself as an increase in public income at the beginning and then, with few exceptions, leads to an expansion of public spending.

The authorities face challenges in designing and carrying out economic policy during a price boom period. From the strictly fiscal point of view, it is important to keep in mind the fact

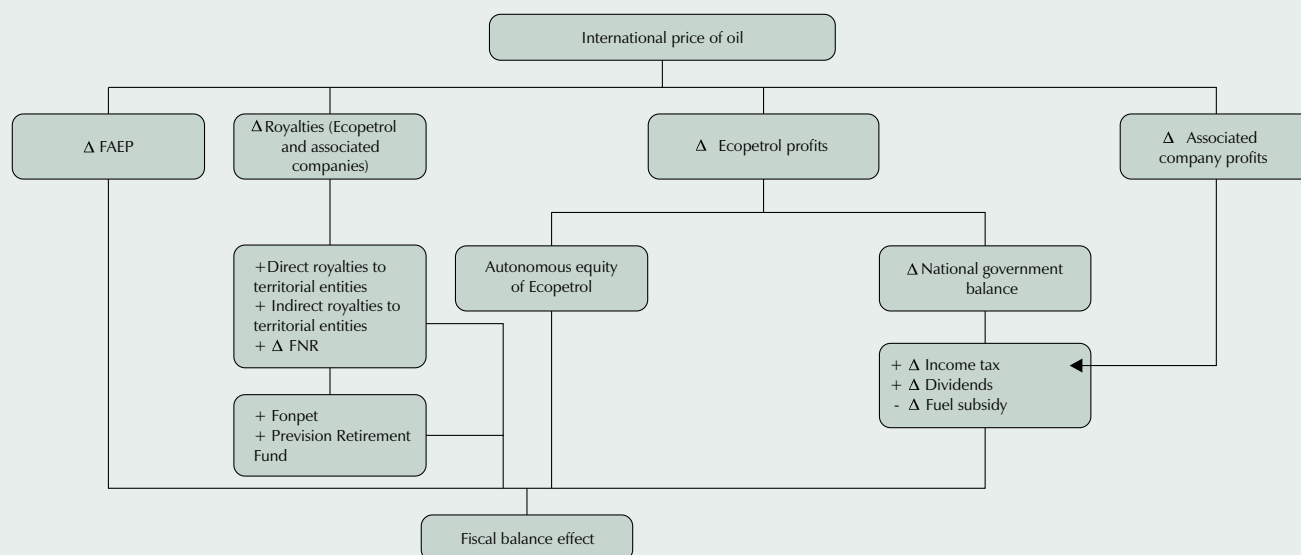
that the revenue received during the price shock is temporary. Therefore, the focus should not be on using it to finance permanent spending because this will later cause deterioration in the fiscal balance and a rise in public debt. In times of fiscal abundance, public savings must be stimulated in order to create more fiscal room to carry out a counter-cyclical policy in periods of economic slowdown.

Due to the importance of the oil price shock on public finances, this box describes how the revenue from the oil business is distributed and quantifies its fiscal impact. The measurement exercise included the operations of national government and the territorial entities, the Oil Stabilization Fund (FAEP) and the social security sector. The effect of the price shock on the finances of Ecopetrol are not calculated because of information limitations. At the end of the box, there is a brief commentary about the possible fiscal impact that the decline in international oil prices may produce.

#### Oil Revenue and Public Finances

The revenue generated by the oil drilling affects the finances of various public entities, both national and territorial, as well as the savings of the social security sector. The main recipients of this revenue are Ecopetrol, the national government and the territorial entities that earn royalties derived from oil drilling. Part of this revenue is reserved in FAEP, the Fondo Nacional

Diagram B3.1  
Transmission Channel for Petroleum Income



Source: Rincón H.; Lozano, I.; Ramos, J. "Rentas petroleras, subsidios e impuestos a los combustibles en Colombia: ¿Qué ocurrió durante el choque reciente de precios?". Borradores de Economía, núm. 541. Banco de la República. Diciembre. 2008.

de Regalías (FNR), the Fondo nacional de Pensiones de las Entidades Territoriales (Fonpet, National Pension Fund for Territorial Entities) and the “Ecopetrol Autonomous Equity,” which was set up to manage the retirement liabilities of the company (Diagram B3.1).

In the case of Ecopetrol, it should be remembered that its revenue comes from domestic sales of gasoline and other fuel, as well as oil derivatives and, to a lesser degree, from oil exports. The fiscal situation of the company was strengthened over the past few years mainly because of the upswing in revenue from domestic sales. These showed remarkable momentum as a result of the performance of international crude oil prices. The fiscal surplus of this company made it possible to ease the imbalance seen in government finances.

The national government collects the income and wealth tax from the petroleum sector, receives dividends transferred by Ecopetrol annually and takes on the fuel subsidies. Up until 2007, this subsidy initially affected Ecopetrol revenue because gasoline and ACPM were sold at prices below the international parity price. Consequently, the profits transferred to the government matched the net subsidy. Beginning in 2008, the central government of Colombia explicitly assumed responsibility for the subsidy in the General National Budget and Ecopetrol began to transfer the full dividend payment to the government and to the other shareholders of the company. In both cases, the existence of the subsidy caused significant fiscal costs.

For the territorial entities, the oil business creates an income flow through the royalties paid to the regions and to the FNR. Similarly, the non-oil-producing districts collect an oil transportation tax—now ceded by the nation—for the oil or gas pipelines that go through their territories.

FAEP is also one of the funds that benefit from the oil industry and was established in 1995 as a means of macroeconomic stabilization and saving. This fund, which the producer departments and districts, FNR and Ecopetrol (until 2007) are

part of, accumulated over US\$2,500 m in proceeds between 1997 and 2007. According to the National Development Plan: 2006-2010, Ecopetrol was released from the obligation to save in this fund and ordered to transfer the money saved by the company (US\$1,750 m) to the nation over the 2008-2010 period.

Finally, the oil business allowed the establishment of the Ecopetrol Autonomous Equity in the social security sector and the arrangement of a set of revenues specifically assigned to Fonpet. As was noted, Autonomous Equity, created in 2000, is a fund set up to provide the pension obligations of the company and has received payments for almost \$5 t. This action prevented Ecopetrol’s pension obligations from being transferred to the nation. The income that is for Fonpet is 5% of the total value of the royalties and 50% of the income transferred to FNR.

### Revenue Quantification

As is seen in Table B3.1, the revenue from oil drilling has been generally concentrated the national government and the territorial entities. However, in 2000, this revenue was particularly high with an amount equivalent to 4.1% of the GDP, which permitted partially funding the Ecopetrol Autonomous Equity (1.3% of the GDP) and generated a substantial cash flow to FAEP (0.8% of the GDP). Recently, the fiscal income associated with oil drilling increased steadily, going from 2.0% of the GDP in 2001 to 3.4% of the GDP in 2008 thus creating a surge in the public sector income equal to 1.4% of the GDP.

As has been pointed out, the national government finances are benefited by the oil business thanks to the dividends transferred from Ecopetrol and the income tax paid by the companies that compose the gas and oil sector. In 2008 and created the government also benefitted from the partial transfer of Ecopetrol savings in FAEP, which are the property of the nation now. In this transfer (0.5% of the GDP), the oil revenue for the government rose from 1% of the GDP in

Table B3.1  
Income Related to the Petroleum Sector  
(percentage of GDP; base 2000)

Recipients	2000	2001	2002	2003	2004	2005	2006	2007	2008 (pr)
National government <sup>a/</sup>	1.1	1.0	0.9	1.1	1.1	1.3	1.3	1.6	2.2
Territorial entities <sup>b/</sup>	0.9	0.7	0.7	0.9	0.7	0.6	0.8	1.0	1.0
FAEP (Oil Stabilization Fund)	0.8	0.4	0.1	0.1	0.2	0.3	0.3	0.2	0.2
Autonomous equity	1.3	0.0	0.1	0.1	0.4	0.3	0.0	0.0	0.0
<b>Total</b>	<b>4.1</b>	<b>2.0</b>	<b>1.8</b>	<b>2.1</b>	<b>2.3</b>	<b>2.4</b>	<b>2.4</b>	<b>2.8</b>	<b>3.4</b>

(pr) preliminary.

a/ Includes revenue from Ecopetrol dividends, income from extraction of crude oil and, in 2008, the transfer of FAEP resources to the National government.

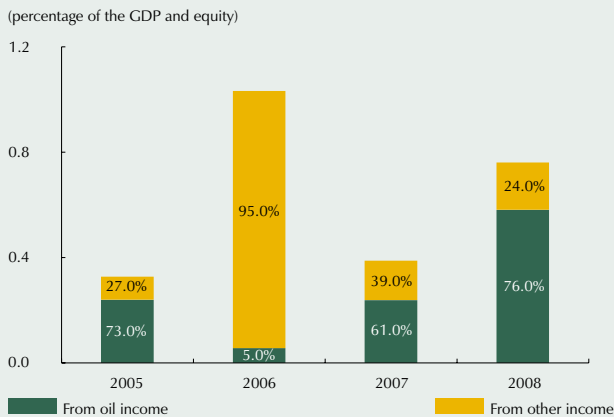
b/ Includes royalties to Fonpet.

Sources: Confitis, Ministry of the Treasury and Public Credit, Ecopetrol and Banco de la República.

2001 to 2.2% of the GDP in 2008. Both the dividends and the income tax, as a whole, showed a rise of close to 0.7% of the GDP in this period.

The government's improved fiscal situation in the last few years was associated with the revenue momentum generated by economic activity and by the recent shock in oil prices. Indeed, separating the annual variation of government income into revenue from oil and from other sources of revenue, it is obvious that the first explains 73% of the total increase for 2005, 5% in 2006 and 61% in 2007. In 2008, this revenue represents 76% of the total upswing in income for the national government (Graph B3.1) including the transfer of Ecopetrol savings to FAEP.

Graph B3.1  
Central National Government  
Sources of revenue expansion



Sources: Confis; Ministry of the Treasury and Public Credit; Ecopetrol and Banco de la República.

Regarding the territorial finances, the international oil price shock resulted in a boost to the royalties paid to the territorial entities and the NRF. The transfers resulting from this went from 0.7% of the GDP in 2002 to 1.0% of the GDP in 2008. It should be pointed out that oil drilling royalties are 80% of the total oil-related revenue collected on the territorial level.

Concerning social security, the oil price shock helped to generate income for Fonpet and for Ecopetrol Autonomous Equity. As of December 2008, the Fonpet portfolio amounted to around COL\$16.5 t, of which \$3.4 t (20%) was derived from royalty payments. This type of contribution went from

\$0.1 t in 2006 to \$0.8 t in 2008. In addition, Ecopetrol Autonomous Equity has a 9.1 trillion portfolio, which includes the company's contributions and financial returns. The contributions made rose to \$5 t, of which \$2 t were transferred between 2004 and 2007, as was noted above.

### Final Comment

The price fall for oil and other commodities caused by the international economic crisis will weaken the finances of the commodity exporting countries, which had benefited from the recent oil price boom. In the case of Colombia, there is no precise quantifying of the fiscal effect associated with the oil price decline. Nonetheless, the current petroleum price makes it possible to predict a decrease of fiscal income similar to the additional revenue earned during the boom. This reduction will be especially evident as of 2010 and it will strongly affect the finances of both the national government and the territorial entities.

Facing this scenario, and in order to avoid a visible worsening of the country's fiscal situation, the authorities must carefully evaluate the flexible portion of the spending program to either cut back on or postpone some appropriations and, in particular, redirect some towards other projects favorable to economic reactivation. Although this type of adjustment is especially complex in times of economic slowdown, the financial authorities have the responsibility to keep the public debt within a sustainable range.

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## IV. INTERNATIONAL RESERVES

*The return of international reserves has been favorable amidst the global financial crisis. Between June 2007 and December 2008, their return rate (5.9%) was higher than the average return of the last ten years (4.9%).*

As of December 31, 2008, the net international reserves totaled US\$24,030 m.<sup>58</sup> As was explained in detail in Chapter III, during the year, US\$515.5 m in reserves were purchased by means of put options to control volatility, US\$450 m through options to accumulate international reserves and US\$1,415.8 m through direct purchase auctions. Furthermore, US\$234.6 m in reserves were sold through call options to control volatility. With this, the net purchases of international reserves reached US\$2,146.7 m. In 2008, the net return on the investment of the reserves was US\$1.004 m.

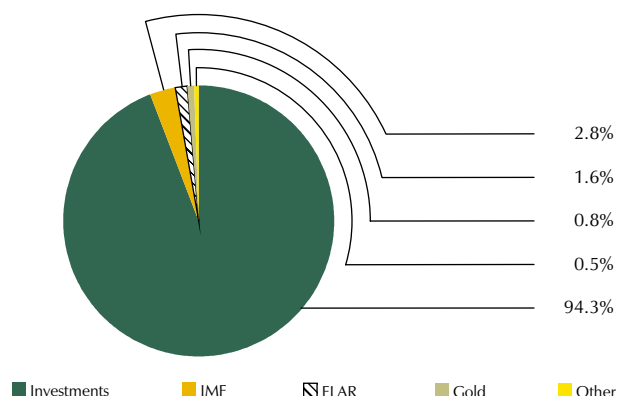
### A. COMPOSITION OF THE INTERNATIONAL RESERVES

The investment of the reserves is separated into four main components:  
i) the investment tranche, which is invested in financial instruments on the

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58 The net reserves are equal to the total international reserves, or gross reserves, minus the short term foreign liabilities of Banco de la República. The latter are composed of demand obligations in foreign currency owed to non-resident agents. Unless otherwise indicated, all of the numbers in this chapter correspond to the end of the month of December, 2008 and are provisional. It is possible that the numbers do not coincide due to rounding.

Graph 57  
Composition of net international reserves



Source: Banco de la República.

international market; ii) shares of supranational entities, such as IMF and LARF; iii) investments in gold and contributions to other international agreements. The main component of the country's international reserves is the investment tranche with 94.3% of the total (US\$22,664.9 m) (Graph 57). The remaining balance is distributed as following: i) an IMF position and special drawing rights (SDR) (US\$670.1 m); ii) contributions to LARF (US\$369.5 m) and iii) gold, Andean pesos and positive balances under international agreements (US\$336.5 m). At the end of 2008, the gross international reserves amounted to US\$24.041 m and the short term foreign liabilities, to US\$11.3 m.<sup>59</sup> With this, the net international reserves reached US\$24.030 m.

## B. CRITERIA FOR MANAGING THE INVESTMENT TRANCHE

### 1. Policies for Determining the Composition of Investment Portfolios

The International Reserves Committee of Banco de la República is the group in charge of setting the policies to regulate the international reserves management, as well as to check their returns and composition. This body meets a minimum of every 60 days and is made up of the five full-time members of the Board of Directors, the General Director and Minister of the Treasury and Public Credit or his deputy. The criteria for managing the international reserves established by the Reserves Committee are, in order of importance: safety, liquidity and return. Based on these principles, and in order to ensure that payments on the country's foreign obligations are met, the reserves are invested in financial assets that have high levels of safety and liquidity. Another characteristic they have is a broad secondary market.

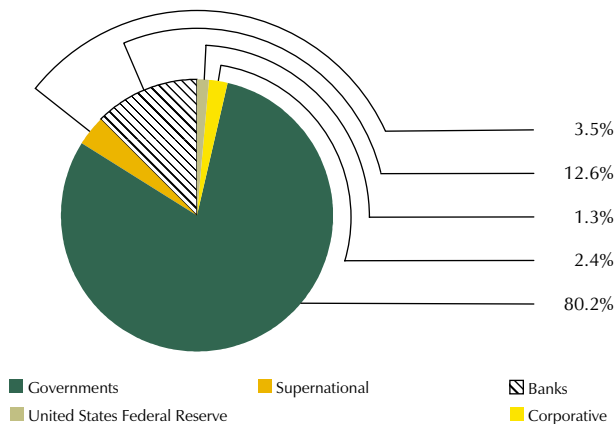
The majority of the reserves portfolio investments are securities backed by government treasuries of developed economies. These securities are considered the safest assets that exist, which is why investors move to them in the midst of crises. The rest of the investments are in instruments other than government debt, but that have a low risk of default or credit risk. Even though Banco de la República could invest all of the reserves in government bonds, the returns that these instruments offer are very low in the long run. This represents an opportunity cost for the country and less income for the government. In order to find an appropriate balance, the Bank carefully studies each one of the assets that are not government debt (bonds, short term instruments, etc.) accepted for the portfolio and places strict limits on investing in them. Among the safest

<sup>59</sup> These liabilities correspond mainly to amounts to be paid on agreed investment.

investment alternatives, the Bank chooses those that generate higher profits for the country with very low risk.

To build the investment portfolio, the first decision the Reserves Committee makes is to determine currency composition. The criteria adopted by the Banco de la República is to replicate the composition of the country's balance of payments outflow. The justification for this criteria is explained below. The government and private sector regularly need foreign currency to pay for imports and to meet the foreign debt servicing. In situations where the country has limited access to foreign currency, the international reserves serve to provide the liquidity necessary to meet these payments. If the international reserves have the same foreign exchange composition as the liabilities with residents abroad, an appreciation of one of these currencies compared to the dollar raises the value of the liability but also of the nation's asset (represented in the international reserves). Currently the index is 85% in US dollars, 12% euros and 4% yen.

Graph 58  
Composition by type of investment tranche issuer



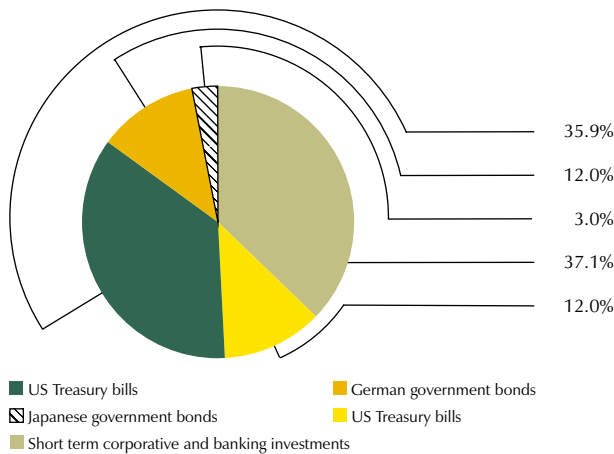
Source: Banco de la República.

The Committee's second investment decision is to choose the eligible assets for the reserve portfolios. Among all of the investment alternatives available on the international market, the Bank chooses those that meet the safety, liquidity and return requirements. Currently, the assets that meet these criteria are government securities from industrialized countries and entities sponsored by them, the securities of supranational entities (i.e., IDB, World Bank and CAF), banking and corporative debt securities from industrialized countries that have a high credit rating and overnight investments in the New York Federal Reserve. Graph 58 shows the current distribution of the investments as of December 31, 2008 by type of issuer.

Once the foreign exchange composition and the set of eligible assets have been defined, the Reserves Committee establishes a benchmark or theoretical portfolio for the investment tranche which reflects their long term return and risk targets. The benchmark is made up of those assets that maximize the yield on the reserves for a year subject to the strict risk restrictions (Graph 59). The benchmark allows the performance of the reserves to be measured and serves to grade the management of the different administrators. This benchmark is checked periodically<sup>60</sup> since the market conditions of financial assets and risk aversion change over time.

60 The statistical exercise to determine the composition of the benchmark is done monthly to verify that the indicator in effect meets the return and risk restrictions. The changes to this measure tend to be approved at a lower frequency (every year) according to the circumstances.

Graph 59  
Composition of the benchmark index



Source: Banco de la República.

The last step in the construction of an investment portfolio is to separate it into various tranches in order to improve its management efficiency such as:

1. A highly liquid tranche called “working capital,” which is directly managed by Banco de la República. Its purpose is to cover the immediate liquidity needs of the reserves. Among its targets, safety and liquidity have priority over return and the investments are concentrated in very short term assets denominated in US dollars. The working capital has a value of US\$1.024 m which is equivalent 4.52% of the investment tranche.
2. A second tranche, classified as indexed, is also managed directly by Banco de la República and its object is to satisfy the liquidity needs in the face of a substantial reduction in the reserves. It is called indexed since it seeks to duplicate the composition of the benchmark and the differences between the portfolio and the benchmark are minimal. The investments have a return profile above that of the working capital while safety is always given priority. This is why the investments are concentrated in short term assets in the United States and bonds issued by the governments of the US, Germany and Japan. The indexed tranche has a value of US\$11,531 m which is 50.84% of the investment tranche.
3. Finally, there is a third group denominated non-indexed tranche which represents 44.64% of the investments. A portion of this is directly managed by the Banco de la República (US\$722 m) and to manage the rest (US\$9.401 m), firms that specialize in fixed-income asset management are contracted so that, within a framework of controlled risk, they apply their experience and resources to determine strategies that will increase the long term returns on the reserves. The composition of this tranche may be different from that of the reference index within the strict parameters defined by the Reserves Committee.

For the internal administration of the portfolios, the Bank has a qualified staff that follows the international markets daily. They have monthly strategy meetings and use quantitative and qualitative tools to analyze the investment alternatives. This staff receives support from economists who are exclusively dedicated to following the economies where the reserves are invested.



## 2. External Management Program

In 1994 the Reserves Committee decided to implement the External Management Program with a portion of the non-indexed tranche. As of December 31, 2008, this program represented 41.45% of the total investment tranche of the reserves. The program has made the transfer of knowledge and technology to the Banco de la República possible. The broader analytical capacity of the external managers also helps to choose the safest names within the investments allowed in the investment guidelines.

The resources that the external managers handle are in accounts that Banco de la República manages. The Bank follows each one of these portfolios daily to make sure that the managers fulfill the investment policies.

After eight years of experience in handling the external management program, the decision was made to change it in 2002. Two strategic decisions were applied: i) divide it into two mandates and ii) extend the program to a larger number of firms, which should compete with each other. Thus, the external management program was divided into two categories: a) the rotation mandate, where the managers have the possibility of investing in assets with the highest credit rating in dollars. These include, for example, agency bonds, mortgage backed securities, corporate bonds and asset backed securities; and b) the global mandate, where the firms use directional strategies (exposure to interest rate risk and taking foreign exchange positions) and invest in highly rated bonds that are not in the index (governments of other industrialized countries, their agencies and supranational institutions). Within the investment strategies approved by the Reserves Committee, the specialized firms try to diversify the foreign exchange composition of the portfolio based on their expectations and within the strict risk limits. The currency with which this type of strategy can be implemented are US, Australian, New Zealand and Canadian dollars; euros; yen; British pounds; Swiss francs; Swedish kronas and Norwegian kroner.

In addition, parameters for evaluating the management of the administration firms is defined. These parameters are reviewed periodically<sup>61</sup> and, depending on how successful the management is, decisions are made such as to modify the amount under management or cancel the contract. Currently, the companies that are participating in the external management program are Barclays Global Investors, Western Asset Management, Deutsche Advisors, Goldman Sachs Asset Management, Blackrock Financial and Wellington Management (Table 23).

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61 Reports are sent to the Reserves Committee monthly on the performance of the portfolios. The horizon for evaluating the external managers is three years to the degree in which enough information is required to make decisions on modifying the amount or canceling contracts. The latest evaluation period ended October 31, 2008.

Table 23  
Foreign Managers

Company	Amount under management (millions of dollars)
DB Advisors (previously Deutsche Asset Management)	914
Goldman Sachs Asset Management	2.248
Wellington Management	1.182
Barclays Global Investors	2.859
Western Asset Management	911
BlackRock Financial Management	1.288
<b>Total</b>	<b>9.401</b>

Source: Banco de la República.

### 3. Securities Loan Program

Lending of securities is an operation usually carried out by central banks to increase the return of the international reserves and cover the custody costs of the securities. The central bank authorizes the entities who have custody of the securities to lend them through a repurchase agreement. In the case of Colombia, Banco de la República received cash or securities with the highest credit ratings possible as loan guarantees.<sup>62</sup> The program was implemented in 1994 and since then, it has produced returns in net interest from US\$43 m in commissions. In March, 2008, the program was suspended in order to reduce the credit risk and face the international financial crisis.

The operating of the securities loan program is independent of the external management program.

Even though the custodians lend the securities that the external managers have acquired, all of the decisions are made by the custodians independently. Legally, the securities loan program and that of external management operate under separate contracts and with different responsibilities.

The main risks in the program are the bankruptcy of a counterparty to whom securities were lent or a bad investment made by the custodian. To reduce these risks, Banco de la República has strict investment guidelines. Specifically, the counterparties should be primary dealers<sup>63</sup> or have high credit ratings (A1 or its equivalent) and the investments can only be made in securities that are rated as superior or equal to A1 (short term). If the securities do not have a short term classification, the investments should have a minimum long term classification of AA-.

As was mentioned above, due to the international crisis and in order to reduce credit risk, Banco de la República suspended the new loans of securities in March, 2008 and decided to gradually phase out the operations in effect. As a consequence, the program has gone from US\$4,177 m in March to US\$898 m currently.

<sup>62</sup> The entities that have the investments in their custody and participate in Banco de la República's securities loan program are JP Morgan Chase and Bank of New York Mellon.

<sup>63</sup> The New York Federal Reserve trades securities only with designated entities which are known as primary dealers. The list includes banks and entities that trade in securities.

#### **4. Risk Management and Supervision of International Reserves Management**

The investments of the reserves are exposed to three main risks: credit, market and liquidity. The credit risk is the possibility that one of the issuers in which one has invested may default on payments. Market risk is, in turn, the probability of taking losses due to adverse price movements for securities. Finally, the liquidity risk is the possibility that an investment will be very difficult to sell and that a very low price may be received for it. The Bank checks the investments against the market prices daily and follows each one of these risks to adjust their investment policies when conditions require it. The policies that Banco de la República has to mitigate each one of the risks described are explained below:

1. To limit the credit risk, the credit ratings published by the best known rating agencies (Standard and Poor's, Moody's and Fitch) are taken as a benchmark. In the short term, the highest rating given by these agencies is A-1+/P-1/F-1+ and the lowest is A-3/P-3/F-3. For the long term, the highest rating is AAA and the lowest is D. The average investor thinks commercial paper that is rated above A-2/P-2/F-2 in the short term and above BBB- in the long term (degree of investment) is a safe investment. To limit the risk, the Bank demands a minimum rating of A-1/P-1/F-1 in the short term and AA- in the long term or, in other words, one level above what is recommended for short term and six levels above what is stipulated for the long term. As another measure for facing the international financial crisis, the Bank raised the minimum long term rating three notches. Furthermore, the issuing banks and corporations in which it makes short term investments should have a minimum capital of US\$2,000 m to guarantee that the investments are only made in solid companies. However, to lessen the impact of a credit event and diversify the portfolio, the maximum exposure to each issuing bank and corporation is limited to around 1% of the investments. As of December 31, 2008, the distribution by credit rating based on the ratings given by the specialized agencies was the following: 45.99% in A-1/P-1/F-1, 0.09% in A-2/P-2/F-2, 48.71% in AAA, 3.27% in AA, 0.6% in A, and 0.02% in BBB<sup>64</sup> as well as 1.32% in repurchase agreements in the New York Federal Reserve. In view of the mistakes the rating agencies made prior to the international financial crisis, the Bank has refined its tools for analyzing risk and reinforced individual follow up on issuers.

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<sup>64</sup> Since September, 2008, the minimum rating for new investments in bank and corporate issues is AA-. Nevertheless, the portfolio has some investments with lower ratings, which had been made prior to that date or had deteriorated in its credit rating since that time. Each one of these investments has been analyzed in detail and it is believed that they do not have a high level of risk. Therefore, it has been decided to wait until their maturity.

2. To give the portfolio low market risk, assets with prices that are low in volatility are selected. That is why alternatives such as stock or long term bonds that have large price swings are avoided and investments in debt instruments with short maturities are preferred. To measure and control the market risk, the Bank uses the Value at Risk methodology (VaR) which estimates the maximum loss a portfolio could have under different horizons, as well as the stress testing methodology which estimates the potential losses in extreme situations. To reduce the exposure to this risk, the Bank lowered the average duration of the benchmark index from 1.46 to 1.27 in 2008.<sup>65</sup>
3. In order to have a low liquidity risk, most of the investments are in commercial paper and in issues that are above US\$250 m. Furthermore, no more than 10% of the total amount issued for each instrument may be purchased.

Because of its importance, the management of the international reserves is watched by different groups inside and outside the Bank.

1. In the Board of Directors' two annual reports to Congress, the results of the reserves management are presented.
2. The General Auditor of the Bank, who is named by the President of the Republic, continuously follows all of the areas in the Bank that have to do with managing the international reserves. He writes reports and observations to improve their operations.
3. Banco de la República contracts an outside firm (currently Price Waterhouse Coopers) to audit the financial state of the Bank. Within this, management of the reserves is of primary importance.
4. Banco de la República is subject to the supervision of the Superintendencia Financiera de Colombia (Financial Superintendence).
5. The Risk Division of the Department of International Reserves follows all of the portfolios daily to verify that they are fulfilling the policies defined by the Reserves Committee.
6. The Internal Audit Department checks the investment and control processes to recommend improvements.

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<sup>65</sup> The modified duration is the percentage change in the portfolio's value by 1% of all of the interest rates. Since the relationship between the interest rate and the value of the portfolio is negative (See Box 4), a decline in the modified duration implies that the reserves have a lower risk of loss compared to a possible rise in the interest rates in the United States.

### C. RECENT PERFORMANCE OF THE INVESTMENTS

In 2008, the net return on international reserves was US\$1.004 m, which is equivalent to an approximately 4.5% rate of return.<sup>66</sup> This result is mainly due to the valuation of investments and interest accruals. The performance of the investments was satisfactory in the midst of the financial crisis since the average return from the last five years was 4.2% (Table 24). Since 2004, the profits from the reserves amounted to US\$3.551 m.

Table 24  
Historic Rate of Return on the Reserves

Year	Rate of return (percentage)	Yield (millions of dollars)
2008	4.5	1,004.5
2007	7.4	1,326.2
2006	5.5	815.2
2005	0.6	81.4
2004	2.7	324.5

Source: Banco de la República.

The returns on the reserves in 2008 was specifically influenced by the Federal Reserve's and Central European Bank's decision to cut the benchmark interest rate for monetary policy in response to the worsening of the economic and financial situation. The reduction in the interest rates translated into higher prices for the securities that the investment portfolio was made of. The US Treasury notes with a two-year maturity, which is a benchmark for short term bonds in the reserves paid a rate of 3.05% in December, 2007 and ended the year 2008 at a level of 0.77% (Table 25 and Graph 60).

Table 25  
Rates of Return on Investment Portfolios (percentage)

Mandate	Portfolio annualized rate of return Period Oct. 31, 2002 to Dec. 31, 2008			Year-to-date portfolio rate of return Period Dec. 31, 2007 to Dec. 31, 2008		
	Portfolio	Benchmark index	Difference	Portfolio	Benchmark index	Difference
	Indexed tranche	4.09	4.13	(0.04)	4.63	4.75
Non-indexed tranche managed by Banco de la República	4.38	4.26	0.12	6.00	5.83	0.17
Global Mandate	5.14	4.99	0.15	5.39	5.83	(0.44)
Rotation mandate	3.46	3.68	(0.22)	5.28	6.75	(1.47)
Working capital	2.96			2.34		

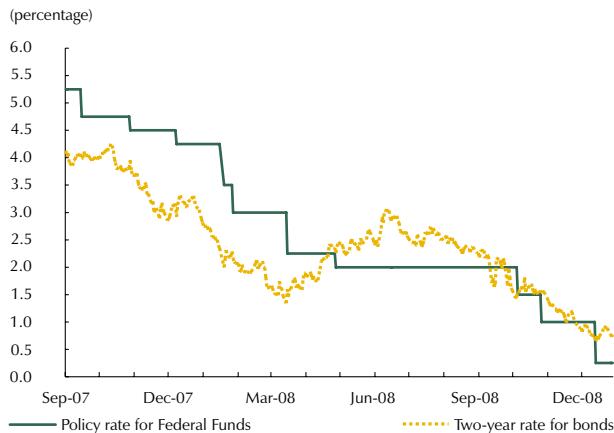
Source: Banco de la República

On the foreign exchange market, the yen appreciated 23.1% compared to the dollar while the euro weakened 4.3%. As a consequence, investments in currency other than the dollar devalued US\$35 m.

Table 25 presents returns from the different mandates that the investment tranche of the international reserves was composed of.

<sup>66</sup> This return includes the losses in the securities loan program with the Bank of New York Mellon and the devaluation of Lehman Brothers' securities, which will be described later.

Graph 60  
Performance of the interest rates for 2-year US bonds compared to the Federal Fund rates



Source: Bloomberg.

During 2008, the external management program produced returns that were lower than those of their benchmark index. That is why the decision was made to reduce it approximately 11% in 2009. The non-indexed portfolio managed by Banco de la República, however, earned returns of 6.0%, which was above that registered by the benchmark index, which was 5.83%.

Since the beginning of the external management program in 1994, gross benefits have been obtained that are in addition to those received by the benchmark index at an annual rate of 0.08% and net benefits in commissions of -0.02%. The aggregate results of the external management program diminished in 2008 since, up to 2007, the total, additional, gross benefits were 0.15% and the net, 0.05%.

## 1. Actions to Face the International Financial Crisis

Investments that under normal economic conditions are considered safe and trustworthy, are seen as highly risky in view of the depth and extension of the international financial crisis. To reduce the risk for the international reserves investments, the Bank adopted the following measures in 2008:

- a. In March, they suspended the securities lending program.
- b. In April and May, they reduced the set of instruments that were eligible for investment. New investments in asset backed commercial paper were suspended and the maximum exposure to asset-backed commercial paper was lowered 80%.
- c. In September, the required ratings for issuers and instruments were made even stricter. Previously, investments with a minimum credit rating of A- were allowed, but in view of the current uncertainty, the new investments are being made in those with minimum ratings of AA- or, in other words, three levels above the previous one.
- d. Over the year, the share of securities backed by the government treasuries of economically developed countries has risen. Between June 30, 2007 and December 31, 2008, the share that these securities have in the portfolio has gone from 52% to 80.2% of the total investment (Table 26). In the future, this trend will be maintained due to even stricter investment policies.
- e. In September, the average portfolio duration was lowered from 1.46 to 1.27.

Table 26  
Changes in the Composition of the Reserves

	June 30, 2007			December 31, 2008		
	Value (millions of dollars)	Participation (percentage)	Minimum credit rating	Value	Participation (percentage)	Minimum credit rating
<b>I. Investment portfolio</b>	<b>18,835,2</b>			<b>22,699,0</b>		
Governments	9,801,6	52.04	A-	18,204,4	80.20	A-
Banks	5,796,2	30.77	A-	2,863,5	12.62	AA-
Non-banking corporations	565,0	3.00	A-	155.2	0.68	AA-
Supranational	401.3	2.13	A-	786.1	3.46	A-
Asset-backed securities	2,055,7	10.91	AAA	389.8	1.72	New investments restricted
Repurchase agreements with the FED	215.4	1.14	n.a.	300.1	1.32	n.a.
<b>II. Others <sup>a/</sup></b>	<b>1,164,2</b>			<b>1,342,0</b>		
<b>III. Total Gross Reserves</b>	<b>19,999,4</b>			<b>24,041,0</b>		

n.a. Not applicable.

a/ Includes gold, contributions to the MF, Andean pesos and international agreements.

Source: Banco de la República.

To improve the balance of risk, the restructuring of the international reserves has been done gradually by taking advantage of maturities and the better opportunities to sell securities. Due to the financial crisis, progress has been made on this task within the limits of a low liquidity market. Banco de la República has followed the same trend as the majority of the world's central banks by moving aggressively from banking risk to government debt.<sup>67</sup>

In spite of these measures, the extreme conditions abroad that the international markets underwent in 2008 caused the reserves to be affected by two credit events: A Lehman Brothers security for US\$2.7 m (0.01% of the reserves portfolio) and a US\$20 m security in the securities loan program managed by the Bank of New York Mellon (0.08% of the reserves portfolio).<sup>68</sup> Before they went into default on payment, both securities met the minimum credit ratings. Events of this type are extremely unusual if we remember that the

<sup>67</sup> According to the TIC Data bulletin, published by the United States Treasury.

<sup>68</sup> Bank of New York Mellon (BNYM) as custodian of part of the reserves lent securities from the investment portfolio while receiving cash as collateral. They invested US\$20m in a security issued by Sigma Finance with part of the cash. This security had a AAA rating at the time it was acquired. The latter entity was liquidated in December, 2008 and the resources were insufficient for the investment that BNYM made to be recovered.

probability of issuers with high credit ratings defaulting has been very low.<sup>69</sup> Upon assuming a controlled credit risk, the country receives higher returns in the long run but is not immune from the possibility that this could produce losses. In the case of Lehman Brothers, the Bank has been moving ahead on the necessary steps to recover these resources within the bankruptcy proceedings. In the case of the securities loan program with the Bank of New York Mellon, Banco de la República contracted an auditor to investigate the circumstances that led to the loss.

In general terms, the return on the reserves has been favorable in the midst of the international financial crisis since most of the assets that compose them of have risen in value. This is because they are in more demand by investors. The profits from the international reserves between June 30, 2007 and December 31, 2008 came to US\$1,923 m even with the above mentioned credit events. This represents an approximate annual rate of return of 5.9% which is above the average return for the last 10 years (4.9%).

Banco de la República will continue to do constant tracking of the developments in the financial market and to analyze the possible sources of risk and alternative actions to ensure that reserves are invested safely. Likewise, they will continue to keep the public informed of the credit events that could affect the international reserves investments.

## **2. Outlook**

Even though the return on the international reserves was high for the last 18 months due to the rising value of the commercial paper in the portfolio, profits in 2009 are projected to be low. The decision by the United States Federal Reserve to keep its interest rate in a range between 0% and 0.25% will cause the projected return of the invested reserves to be under 1% to the degree in which the interest accrued from the investment is very low and in which the outlook for greater valuation of the securities is limited.

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<sup>69</sup> According to Moody's only 0.076% of the issuers that had the same characteristics as Lehman Brothers have defaulted on payments between 1920 and 2007. With respect to BNYM's investment in Sigma Finance, Standard and Poor's estimates that the frequency of defaults for similar instruments has been 2.26% between 2005 and 2008, a period that includes the financial crisis.



Box 4  
FACTORS AFFECTING THE RETURNS ON INTERNATIONAL RESERVES  
(THEORETICAL DISCUSSION)

The yield of international reserves in dollars depends mainly on three factors: i) the interest accrued by the investments; ii) the changes in the financial asset prices in the portfolio and iii) the exchange rate fluctuation. Each one of these aspects is explained below:

**The interest accrued from the investments**

The international reserves are invested in financial instruments known as fixed-income, which are characterized by paying the investor a previously defined interest over a determined period of time. The fixed-income instruments have a maturity date. This means an established span of time in which the investor gets back his entire investment.

Each fixed-income financial instrument has a different agreed interest rate, or coupon rate. However, the main factor that determines these rates is the monetary policy of each central bank since all the interest rates for the instruments issued in any currency tend to move in the same direction. This implies that the returns on international reserves will be lower when the interest rates of the main central banks (United States Federal Reserve, European Central Bank and Bank of Japan) are down.

Another important factor that determines the contracted rates for the fixed-income instruments is the margin or spread on treasury bonds, i.e., the difference between the rate of return for non-government and government bonds. This spread is specific for each issuer and depends on the creditor's credit rating (a lower spread equals a better credit rating and vice versa). This means that the better the issuer's credit rating is, the lower the contracted rate will be at which they can issue fixed-income securities. Therefore, the returns on international reserves from the interest rate for investments in non-government securities tend to be lower when the credit rating of the issuer rises.

For instance, if a portion of the reserves portfolio is invested in a United States Treasury bond, which has a contracted interest rate of 2.75%, the reserves will receive US\$2.75 in annual interest for each US\$100 in face value.

**The changes in the financial asset prices in the portfolio**

The returns on international reserves are also affected by price changes for the investments. The price of a fixed-income instrument is defined as the current value of cash

flow, discounted at a specific interest rate, or return rate, as shown in the following formula:

$$P = \frac{FC_1}{1+i} + \frac{FC_2}{(1+i)^2} + \dots + \frac{FC_n}{(1+i)^n}$$

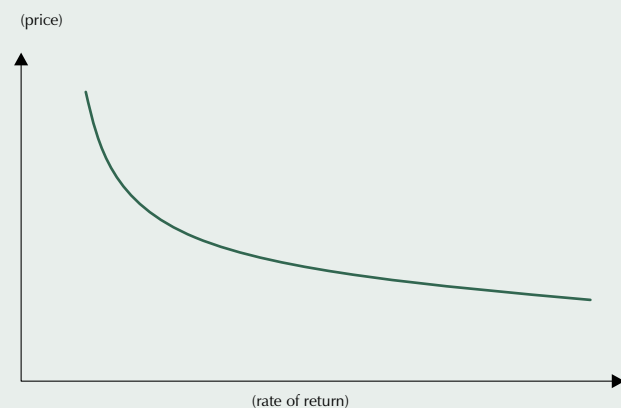
Where  $P$  is the price of the instrument;  $CF$  is the cash flow (coupon rates and principal);  $i$  is the instrument interest rate and  $n$  is the number of periods.

For the majority of fixed-income instruments, the cash flow that will be received in the future is fixed and the investor knows this from the beginning. That is why the only factor that can cause price changes is the interest rate at which each instrument is traded on the market. The formula shows that the price of the security rises when its interest rate declines, and vice versa, as is shown in Graph B4.1.

As was mentioned above, the main factor that determines the performance of the interest rates on a market is the monetary policy. Due to this, the investments of international reserves are prone to increase in value when the main central banks reduce the interest rates and to depreciate when the central banks apply a restrictive monetary policy. In periods when monetary policy is stable, the international reserves do not exhibit large profits or losses due to this factor.

Another significant aspect is the margin or spread (explained above) which determines the rate of return for a host of fixed-income instruments. The spread changes to the degree that the investors' perception of a specific issuer's credit risk is altered. Thus, an improvement in the credit rating

Graph B4.1  
Relationship between a bond price and interest rate



reduces the spread, lowers the interest rate for the fixed-income instrument which then goes up in value. Conversely, deterioration in the credit rating has the opposite effect upon the asset.

Finally, the modified duration of the investment portfolio (i.e., the percentage change in the portfolio value due to changes in rates of return) will determine the extent to which its value will be effected by interest rate fluctuations. Given a general variation in the level of either interest or return rates, the low duration portfolios will experience fewer changes in their valuation than the high duration ones. For instance, if the interest rates in the economy *rise* 1%, an investment portfolio with a 1.2 duration will *lose* approximately 1.2% of its value while one with a 2.2 duration will *lose* approximately 2.2% of its value.

### **The interest rate fluctuation**

The international reserves are valued in dollars. Nonetheless, there are investments in other currencies. This is the reason interest rate fluctuation also has an impact upon the portfolio profitability. The exchange composition of international reserves is approximately 85% in dollars, 12% in euros and 3% in yens, which causes the euro/dollar ratio and the dollar/yen ratio to exert a major impact on return. For example, if the euro becomes stronger in relation to the dollar, the value of the reserves expressed in dollars increases (that 12% denominated in euros will have appreciated when calculated in dollars). However, this factor can produce both profits and losses for the Bank because the exchange rates have significant fluctuations in the long term that are difficult to predict.

## IV. THE FINANCIAL SITUATION OF BANCO DE LA REPÚBLICA

*According to the by-laws of Banco de la República, the Board of Directors decided to distribute this year 818.6b from the profits obtained during 2008.*

The structure of the Banco de la República's financial statements reflects the goals and functions provided in the Charter, in Act 31/1992 and in the by-laws of the institution.

### A. LEGAL FRAMEWORK

The Banco de la República's accounting is guided by what was set out in Act 31/1992, Decree 2520/1993 (Bank by-laws), the relevant provisions established by the Financial Superintendence regarding this and Decree 2649/1993 (generally accepted principles or norms of accounting in Colombia).

#### **Main Characteristics of the Accounting Framework**

The following are the main characteristics of Banco de la República's accounting system:

- a. Their accounting period is one year and the accrual or cumulative method of accounting is used to recognize economic facts.
- b. The international reserves portfolio is valued daily based on market prices.
- c. The TES investments are valued at market prices based on the instructions established by the Financial Superintendence.
- d. Not all of the assets and liabilities in foreign currency affect the international reserves. For an asset to be considered an international reserve, it must comply with the following characteristics: be negotiable, available, currency of origin and residence. It must be under the control of the monetary authority and be immediately available to directly finance imbalances in the balance of payments and regulate them through intervention in the foreign exchange market.
- e. Given the nature of the institution as a central bank, there are special rules with respect to the accounting record, for example, i) fluctuations of other currencies against the dollar; ii) variations in the market prices for investments in foreign currency; and iii) the effect of variations in the peso/dollar exchange rate on international reserves. In the first two cases, the variations are reflected in the income statement while variations in the latter are mirrored in the equity surplus.

Fluctuations in the price of different currencies against the US dollar, which is the international reserves accounting reference unit, affect the Bank's operational results. This being the case, appreciation of the euro and the yen against the dollar generates a profit for the Bank while their depreciation against the dollar generates a loss.

Variations in the market prices for the different securities or for the international reserve portfolio lead to valuations or devaluations, which affect the income statement. A decline in interest rates in the United States and the European Union would generate the value of the portfolio to market prices, and this would spell a profit for the Bank. If this pattern were reversed, a rise in international interest rates would devalue the Bank's assets and generate operational losses.

Finally, variations in the peso against the US dollar are listed on the Bank's financial statements as a currency exchange adjustment and recorded as surplus equity. The exchange adjustment occasioned by assets and liabilities in foreign currency that are not part of international reserves is recorded in the results for the period.

- f. The by-laws of the Bank require a reserve for currency fluctuation to be set up. It is composed of that part of the profits from each period that

correspond to the increased net value of the Bank's assets and liabilities in foreign currency originated from variations of the dollar against other reserve currencies provided were a profit during the accounting period in question. When currency fluctuations result in a net loss at the end of the period, it can be absorbed with this reserve.

- g. Once the reserves have been appropriated, the remaining annual profits belong to the nation. If a loss is shown at the end of the annual accounting period, it should be charged against, first of all, the monetary and exchange stabilization reserve, which was created specifically for this purpose. If this provision is not enough, what is lacking should be covered by appropriations from the general national budget.
- h. The net result of the Bank's operations is projected annually and incorporated on the annual budget. The profits or losses are included in the income or expense budget for this purpose, as the case may be.
- i. Profits or losses are paid or charged to the Nation in cash during the first quarter of each year, pursuant to Act 31/1992.

## B. FINANCIAL STRUCTURE OF THE GENERAL BALANCE AND OF THE INCOME STATEMENT

### 1. General Balance

#### a. Assets

##### i. Gross International Reserves

The International Reserves are the Bank's main assets with a participation of 85.3% of the total. They are also the main source of income. They are made up of the portfolio of investment (94.3%), valued at market prices, under both direct and outside management. The remainder (5.7%) is divided as follows: SDR and reserve positions with the IMF, contributions and Andean pesos in the LARF, positive balances under international agreements and monetary gold inventory.

##### ii. Repurchase Agreements and Temporary Liquidity Support

These are the repo transactions granted by the Bank, which consist of the temporary purchase of public debt securities to provide financial institutions with temporary liquidity. To date these are 2.5% of the total assets. The rate charged becomes operating income for the Bank. It should be noted that in the last few years, temporary liquidity support has not been provided for credit institutions.

*iii. Investments*

These are basically the securities portfolio, which is 1.4% of the total assets. Its return resulting from market price valuations becomes operating income for the entity. The Bank makes these investments to manage liquidity through the definitive purchase or sale of government debt securities (TES) on the secondary market.

*iv. Contributions to International Organizations*

These are made up of Bank shares in multilateral credit institutions but do not constitute reserve assets and were made before Act 31/1992 went into effect. These include contributions to the IMF in legal currency to the Inter-American Development Bank (IDB), to the International Bank for Reconstruction and Development (IBRD) and Commission for Andean Development (CAF in Spanish). These account for 4.1% of the Bank's total assets and are offset by an entry for a similar amount under liabilities. Thus, in net terms, they represent only 1.0% of all assets belonging to the Bank.

*v. Other Net Assets*

These primarily include the trust rights over pension liability resources that were turned over to specialized institutions to be managed as well as property and equipment, art and cultural work—particularly the bibliographic material deposited at the different public libraries around the country and the collections of gold handicrafts, paintings, sculptures and other works of art as well as the stock of non-monetary precious metals. It is also included in this item, the accounting valuation of the real estate and work of art and culture belonging to the Bank. The balancing entry is reflected in the equity surplus. The share of this item is 7.0% of the total assets.

**b. Liabilities**

*i. Monetary Base*

This is made up of the banknotes and coins in circulation and the current accounts of financial institutions. It is the Bank's main liability and represents 57.9% of the total liabilities and equity. The costs generated by these liabilities such as the production costs of printing banknotes and coins and remuneration on reserve requirements, are reflected in the expenses made by the Bank.

*ii. National Government—Office of the National Treasury*

These are national government deposits in local currency made through the Office of the National Treasury. They account for 4.0% of total liabilities

and equity. These deposits earn interest according to the maturity and are reflected in the Bank's operational expenses.

*iii. Liabilities with International Organizations*

These are contributions in domestic and foreign currency that have been placed at the disposal of international organizations.

*iv. Other Liabilities*

These primarily include the provisions registered for retirement pensions and employee liabilities. This item accounts for 1.3% of total liabilities and equity.

**c. Equity**

Equity represents 30.5% of the Bank's total assets. This includes initial capital, statutory reserves, the surplus and the profits or losses for the period.

The most important component of the equity is the surplus, which accounts for 24.5% of total liabilities and equity. The exchange rate differences coming from the cumulative depreciation of the peso with respect to the dollar when reserve assets are re-expressed in pesos are registered under this item.

The statutory reserves, in turn, account for 3.8% of total liabilities and equity and are divided as follows: the reserve for currency fluctuation: Col\$2,377.9 bn; the reserve for exchange rate results: Col\$11.7 bn and the reserve for asset protection: Col\$3.9 bn.

## **2. Income Statement**

For administrative and budgetary purposes, the Banco de la República's income statement is classified by monetary, corporate and pension spending.

The monetary budget brings together the results of the constitutional functions assigned to the Bank as the monetary, exchange and credit authority, the bank of issue, the manager of the international reserves, the banker and lender of last resort for credit institutions, and the government's fiscal agency.

The corporate budget includes the results of the Bank's administrative management in its capacity as a fiduciary agency, income from commissions for banking services and from the purchase and sale of precious metals, personnel and pension expenditures, operating costs and cultural spending.

**a. *Monetary Income and Expenditures***

Historically, The monetary income has represented more than 90% of Bank's total income. It is no easy to estimate this type of income as it depends on variables such as interest rates, the foreign and domestic fluctuations in the market prices of investment portfolios and in the price of reserve currencies with respect to the Colombian peso. This income also depends on the monetary and foreign exchange measures adopted by the BDBR.

The following are monetary income of the bank:

- Returns from the international reserve portfolio.
- Appreciations of the portfolio of government bonds, which is used for permanent liquidity operations.
- Interest received from temporary liquidity operations (repos).
- Favorable exchange rate differences generated on assets and liabilities in foreign currency (other than international reserves), due to variation of the peso against the dollar.
- Income from placing coins in circulation whose production value is lower than its face value. At the same time when coins are destroyed, the metal that is recovered produces an additional income.
- Dividends received from Banco de la República contributions to the Corporación Andina de Fomento.
- Other minor income

The following are monetary expenses of the bank::

- Interest paid to credit institutions in remuneration for the reserve requirement for savings accounts and CDs.<sup>70</sup>
- Interest paid to the National Treasury on funds deposited with Banco according to Act 31/1992.
- Commissions and expenses paid for management, custodian of securities and legal advice on managing international reserve abroad.

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<sup>70</sup> As of February, 2009, remuneration for the reserve requirement for checking, savings and demand deposit accounts was eliminated.



- Unfavorable exchange rate differences generated on assets and liabilities (other than international reserves) in foreign currency due to variation of the peso with respect to the dollar.
- The cost of printing, importing raw materials, minting, destruction and national distribution of coins and banknotes, which is recorded in expenditures when these banknotes and coins are put into circulation.
- Other minor outlays, of which commissions paid for delegated management of the Fondo de Estabilización Petrolera (FAEP, Oil Stabilization Fund) portfolio and payments for the use of the *Swift* system are highlighted.

**b. Corporate Income and expenses**

Income that is considered corporate normally accounts for 10% of total income and corresponds to:

- The commissions the Bank receives in their capacity as the government’s agent for issuing, placing and managing government bonds on the market and for management of the FAEP portfolio.
- Commissions from financial brokers for providing banking services. These include providing cash, clearing checks, custodian services and transactions of securities at the Central Deposit of Securities (DCV), interbank fund transfers, the electronic trading service (SEN), which allows affiliates to purchase/sell securities issued and managed by the Bank as well as, to execute treasury and repo transactions.

Corporate expenses account for approximately 25% to 35% of total expenses and are:

Graph 61  
Personnel expenses



Source: Banco de la República.

Personnel costs, within which highlights wages, employee benefits, payroll taxes, training and medical care. They have decrease 13.5% in the last 10 years (Graph 61). This drop is directly associated with the reduction in the number of active personnel at the institution. As in 2002, 212 employees took advantage of an early retirement plan set up by the Bank.

General expenses or operating cost include public utilities, janitorial services and surveillance, maintenance and repairs, other services contracted with third parties, etc. have declined 35.6% over the 1998-2008 (Graph 62).

Graph 62  
Genera expenses



Source: Banco de la República.

The reduction seen in the Bank's general expenditures is the result of: i) a program to rationalize expenditures which is oriented towards structural changes such as process review, operating plans, costs, providers, plans and tariffs; ii) reconsideration of needs in consumption; and iii) emphasis on following up the savings implementation and targets.

The growth seen in 2002 was the result of the Col\$10,000 m support that Banco de la República provided for the National Reading and Libraries Plan through the Fondo Financiero de Proyectos de Desarrollo (Fonade, Financial Fund for Development Projects) coordinated by the Ministry of Culture.

- The expenditures for taxes, insurance and contributions.
- The cultural costs of activities are those that are incurred in the development of an activity plan for areas such as libraries, sculpture and related art work, as well as music, numismatics, the Gold Museum and those at branches.
- The outflows due to depreciations, provisions, debt repayment and other minor expenses.

### *c. Pension expenses*

The provisions for pension liabilities have been constituted and are updated according to the actuarial estimates, in order to create a self-sufficient funding system. The resources earmarked to cover the pension liability are managed by several specialized fiduciary institutions as autonomous equity and the returns are used to defray part of the expenses related to pensions.

Because of this, pension expenditures are presented separately from corporate expenses. They register the net result from the income received from the earnings on the portfolio, which is composed of pension liability resources and interest from the housing loans extended to Banco de la República employees and the expenses for monthly pensions, the provision for the actuarial calculation, and others.

## REOPENING OF THE GOLD MUSEUM

On November 2, 2008 Banco de la República's Gold Museum inaugurated a new permanent exposition as well as a renovated structure and enlarged space in order to maximize the capacity of the building to receive national and international visitors who come to see the world renowned collection of pre-hispanic metallurgy.

The project to transform the Museum was planned in two stages. In December, 2004, the first part was opened in the new building and in November, 2008, the new Gold Museum, which was connected to the 1968 building (that was completely remodeled), was inaugurated. The transformation entailed the renovation and updating of its scientific guide and map of the museum, an increase in the number of objects on permanent display, new services for the public and the adoption of a new concept in museum layout to exhibit and make our collections as well as others known.

Some of the relevant data are presented below:

- The area of the building was almost doubled from 7,000 m<sup>2</sup> to 13,000 m<sup>2</sup>.
- The area dedicated to the permanent exhibition increased from 830 m<sup>2</sup> to 1,814 m<sup>2</sup>.

- The area for temporary expositions was quadrupled. Currently it includes four rooms which total 4,000 m<sup>2</sup>.
- The permanent exhibition in the museum will include almost 6,000 pieces. Until now, it has not been possible to put a quarter of these on public display due to lack of space.
- The total cost for enlarging the Gold Museum was Col\$18,592 m for the first stage and Col\$22,411 m for the second stage of the project.
- Since the Museum was re-opened, the number of national and international visitors has been the following:

Month	Number of visitors
November, 2008	46,305
December, 2008	35,890
January, 2009	51,928

Graph 63  
Changes in Banco de la República staff (as of December each year)



Source: Banco de la República.

## C. REDUCTION OF PERSONNEL

The reduction in personnel costs has been accompanied by a continuous decline in the staff at Banco de la República. In the 1998-2008 period, the Bank reduced its staff by 29.1% (Graph 63) from 3,311 to 2,348 employees. This reduction was achieved through early retirement plans, retirement plans with a bonus, not filling vacancies and instead, only filling those that are considered indispensable.

### 1. Income Statement for 2008

Banco de la República's 2008 income statement showed profits of Col\$1,321.8 bn (Table 27), the result of an income of Col\$2,965.9 bn and expenditures of

Table 27  
Banco de la República, Profit and Loss, 2007-2008  
(billions of pesos)

	Performance as of:		Annual variation	
	Dec., 2007	Dec., 2008	Percentage	Absolute
	A	B	(B/A)	(B - A)
<b>1. Income</b>	<b>3,496.7</b>	<b>2,965.9</b>	<b>(15.2)</b>	<b>(530.8)</b>
<b>A. Monetary income</b>	<b>3,317.4</b>	<b>2,798.6</b>	<b>(15.6)</b>	<b>(518.7)</b>
1. Interest and returns	3,153.6	2,514.0	(20.3)	(639.7)
International reserves	2,746.3	2,119.8	(22.8)	(626.5)
Other interest	30.7	13.5	(56.0)	(17.2)
Liquidity operations (Repos and transitory support)	305.4	311.7	2.1	6.3
Valuation of TES	69.7	68.4	(1.9)	(1.3)
Valuation gains/losses on other securities	1.5	0.6	(62.7)	(1.0)
2. Exchange rate differences	60.3	224.9	272.9	164.6
3. Coins	84.6	47.3	(44.1)	(37.3)
4. Other	18.8	12.5	(33.4)	(6.3)
<b>B. Corporative income</b>	<b>179.3</b>	<b>167.3</b>	<b>(6.7)</b>	<b>(12.0)</b>
<b>2. Expenditures</b>	<b>1,511.7</b>	<b>1,644.1</b>	<b>8.8</b>	<b>132.5</b>
<b>A. Monetary expenditures</b>	<b>1,051.0</b>	<b>1,249.1</b>	<b>18.8</b>	<b>198.1</b>
1. Interest and return	758.9	955.5	25.9	196.6
Reserve requirements on deposit accounts	120.4	163.2	35.5	42.8
Remuneration of National Treasury Deposits	534.7	708.3	32.5	173.7
Costs of monetary contraction operations	17.9	15.6	(12.7)	(2.3)
Costs of international reserves management	85.9	68.4	(20.4)	(17.5)
2. Exchange rate differences	144.2	175.9	22.0	31.7
3. Costs of issuing and distributing banknotes and coins	136.9	113.9	(16.8)	(23.0)
4. Other	11.1	3.8	(65.9)	(7.3)
<b>B. Corporative Expenditures</b>	<b>309.7</b>	<b>322.4</b>	<b>4.1</b>	<b>12.7</b>
1. Personnel expenses	196.7	206.3	4.9	9.6
2. General expenses	44.7	47.5	6.4	2.8
3. Taxes	7.2	7.2	(0.4)	(0.0)
4. Insurance	6.4	6.0	(6.8)	(0.4)
5. Contributions and membership fees	6.2	4.6	(25.8)	(1.6)
6. Cultural expenses	8.4	8.7	3.8	0.3
7. Depreciation, provisions, debt repayment and other <sup>a/</sup>	40.2	42.2	5.1	2.0
<b>C. Pension expenses</b>	<b>150.9</b>	<b>72.6</b>	<b>(51.9)</b>	<b>(78.3)</b>
<b>3. Operational results</b>	<b>1,985.0</b>	<b>1,321.8</b>	<b>(33.4)</b>	<b>(663.2)</b>

a/ Includes deferred software expenses.  
Source: Banco de la República.

Col\$1,644.1 bn. As will be explained in more detail later, from this profit, the equivalent of US\$818.6 m were transferred to the national government once the reserves stipulated by the Bank's by-laws were set up.

The income came mainly from the return on the international reserves, Col\$2,119.8 bn (US\$1,004.5 bn). Other income that should be highlighted is: the returns of Col\$311.7 bn on liquidity transactions (repos), exchange rate differences<sup>71</sup> (Col\$224.9 bn), commissions received for the services provided to the financial sector as part of its role as the banker's bank (Col\$123.3 bn) and the rise in value of the TES (Col\$68.4 bn).

The main expenses, in turn, were the remuneration for the national government deposits (Col\$708.3 bn), remuneration for the reserve requirement (Col\$163.2 bn), exchange rate differences<sup>72</sup> (Col\$175.9 bn), personnel costs (Col\$206.3 bn), the cost of issuing banknotes and coins (Col\$113.9 bn) and general expenses (Col\$47.5 bn).

The return on the net international reserves as of December 31, 2008 was Col\$2,119.8 bn. The income earned from the appreciation of the investments as well as interest accruals was as much as Col\$2,136.9 bn while the return from the exchange rate differential showed a negative value of Col\$17.1 bn due to the strengthening of the dollar with respect to the euro.<sup>73</sup>

In 2008, investment of the reserves showed an annual return of 4.86% which was associated with the international crisis especially during the last quarter of the year. During this year there was a significant reduction in the Fed's rate<sup>74</sup> as a consequence of the liquidity crisis. With this, the assets which the reserves had been invested in reflected substantial appreciation.

In relation to the expenditures, the reduction in real terms of 55.3% of the net expenses for pensions in comparison to the year before is highlighted. This was because of the effect of higher returns on the portfolio that is made up of pension liability resources (Col\$86.4 bn). This, in turn, was due to the appreciation of the portfolio as a result of the performance of TES' interest rates during the last quarter of the year, security that represent approximately 82% of portfolio. It should be emphasized that the results of the expenditures on personnel and general expenses, which in real terms declined 2.6% and 1.2% respectively compared to 2007.

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71 This refers to the appreciation of assets in foreign currency, which does not affect the international reserves, due to the devaluation of the peso compared to the dollar.

72 This refers to appreciation of the liabilities in foreign currency, which does not affect the international reserves due to the devaluation of the peso with respect to the dollar.

73 The euro went from 1.4621 to 1.3901 dollars per euro between December, 2007 and December, 2008. The yen went from 111.7150 to 90.6500 yen per dollar between December, 2007 and December, 2008.

74 In 2008 the Fed rate dropped 400 bp.

## 2. Allocation to Reserves and Profit Distribution

According to in to the by-laws of the Banco de la República, the BDBR decided to distribute this year Col\$818.6 bn from the profits obtained during 2008 once the reserves called for in articles 60, 61 and 63 of the Bank's by-laws (Decree 2520, December 14, 1993) are allocated and the value of the net investment in cultural activity assets is discounted. As has been mentioned, after this was done, US\$320.4 m, which is equivalent to Col\$818.6 bn, was turned over to the national government (Graph 28).

Table 28  
Distribution of 2008 Profits and Use of Banco de la República Reserves  
(billions of pesos)

Profits or losses for 2008	1,321.8
<b>Plus: Use of reserves</b>	<b>30.3</b>
Reserve for asset protection	1.8
Exchange performance reserve	11.7
Reserve for exchange rate results	16.8
<b>Minus: Allocation to reserves</b>	<b>533.5</b>
Reserve for currency fluctuation	
Net investment in assets for cultural activity	30.0
Reserve for monetary and exchange stabilization	503.5
<b>Net results in favor of the National government</b>	<b>818.6</b>

Source: Banco de la República.

As a result, and once the equity reserves were allocated, the balance of them was the following: i) reserve for currency fluctuation<sup>75</sup> (Col\$2,361.1 bn), ii) Col\$2.1 bn in reserves for asset protection and iii) Col\$503.5 bn in reserves for monetary and exchange stabilization. Pursuant to what is provided for in the by-laws, the reserve for monetary and exchange stabilization was constituted given that possible losses are projected for the next two years.

## 3. Banco de la República Balance

Below the changes in the main asset, liability and equity items for Banco de la República as of December 31, 2008 compared to the balances for December 31, 2007 are explained (Table 29).

<sup>75</sup> Resources to cover possible losses due to fluctuation in the exchange rate of the dollar compared to other other reserve currencies that compose the portfolio.

Table 29  
Banco de la República Balance Sheet, Classified by Economic Criteria. December, 2007 and December, 2008  
(billions of pesos)

	December, 2007		December, 2008		Variation	
	Balances	Percentage	Balances	Percentage	Absolute	Percentage
<b>Assets</b>	<b>54,749</b>	<b>100.0</b>	<b>62,508</b>	<b>100.0</b>	<b>7,759</b>	<b>14.2</b>
Gross international reserves	42,219	77.1	53,938	86.3	11,719	27.8
Contributions to international entities	2,571	4.7	2,538	4.1	(33)	(1.3)
Investments	1,364	2.5	900	1.4	(464)	(34.0)
Public sector: consolidated debt	0	0.0	0	0.0	0	
Public sector: monetary regulation	1,306	2.4	864	1.4	(442)	(33.8)
Bonds: Public bank capitalization and others	58	0.1	36	0.1	(22)	(37.7)
Loan portfolio	0	0.0	1	0.0	1	180.2
Public sector and national government	1	0.0	1	0.0	(0)	(21.4)
Financial corporations	0	0.0	0	0.0	0	
Other loans	0	0.0	4	0.0	4	
Provision	(1)	(0.0)	(4)	(0.0)	(3)	297.4
Repo agreements and transitory liquidity support	5,403	9.9	1,547	2.5	(3,856)	(71.4)
Accounts receivable	41	0.1	37	0.1	(4)	(8.6)
Other net assets	3,150	5.8	3,547	5.7	396	12.6
<b>Liabilities and equity</b>	<b>54,749</b>	<b>100.0</b>	<b>62,508</b>	<b>100.0</b>	<b>7,759</b>	<b>14.2</b>
<b>Liabilities</b>	<b>41,532</b>	<b>75.9</b>	<b>43,460</b>	<b>69.5</b>	<b>1,928</b>	<b>4.6</b>
Foreign currency liabilities that affect the international reserves	13	0.0	25	0.0	13	97.5
Monetary base	32,415	59.2	36,194	57.9	3,779	11.7
Banknotes in circulation	26,842	49.0	29,875	47.8	3,034	11.3
Treasury coins	620	1.1	666	1.1	46	7.4
Reserve requirement for banks	4,609	8.4	5,074	8.1	465	10.1
Reserve requirement for the rest of financial sector	345	0.6	578	0.9	234	67.8
Non-reserve Interest-bearing deposits	259	0.5	1,624	2.6	1,365	526.8
Deposits due to borrowing abroad and foreign-capital portfolio investment	1,060	1.9	15	0.0	(1,044)	(98.6)
Other deposits	73	0.1	108	0.2	35	48.2
National government: Ministry of Finance Treasury Office (local currency)	4,661	8.5	2,487	4.0	(2,174)	(46.6)
National government: Ministry of Finance Treasury Office f/c	174	0.3	151	0.2	(23)	(13.2)
Obligations to international organizations	2,052	3.7	1,940	3.1	(112)	(5.5)
Accounts payable	59	0.1	78	0.1	19	32.6
Other liabilities	767	1.4	837	1.3	70	9.1
<b>Total equity</b>	<b>13,217</b>	<b>24.1</b>	<b>19,049</b>	<b>30.5</b>	<b>5,831</b>	<b>44.1</b>
Capital	13	0.0	13	0.0	0	0.0
Reserves	1,832	3.3	2,393	3.8	562	30.7
Surplus	9,388	17.1	15,321	24.5	5,933	63.2
CEC Liquidation (Special Foreign-Exchange Account settlement)	453	0.8	453	0.7	0	0.0
Foreign exchange adjustment from 1993 onward and surplus	7,798	14.2	13,623	21.8	5,825	74.7

Table 29 (continuation)  
 Banco de la República Balance Sheet, Classified by Economic Criteria. December, 2007 and December, 2008  
 (billions of pesos)

	December, 2007		December, 2008		Variation	
	Balances	Percentage	Balances	Percentage	Absolute	Percentage
Other	95	0.2	103	0.2	8	8.4
Property valuation (art, culture and real estate)	1,042	1.9	1,142	1.8	100	9.6
Results	1,985	3.6	1,322	2.1	(663)	(33.4)
Previous year profits and/or losses	0	0.0	0	0.0	0	
Accounting year profits and/or losses	1,985	3.6	1,322	2.1	(663)	(33.4)

Source: Banco de la República.

#### **a. Asset**

Banco de la República assets had a balance of Col\$62,508 bn as of December 31, 2008. This number exceeded the balance seen on December 31, 2007 by Col\$7,759 bn (14.2%) when the assets amounted to Col\$54,749 bn. The main variations in the asset accounts are explained by:

*i International reserves:* at the close of December, 2008, the gross international reserves, valued at market prices, were Col\$53,938 bn (US\$24,041 m). In 2008 there was a change in the reserves of Col\$11,719 bn (28%) mainly due to: i) higher reserves from the net purchase of foreign currency (Col\$3,913.9 bn), ii) the exchange adjustment resulting from the depreciation of the peso with respect to the dollar, which raised the balance of the gross international reserves in pesos by Col\$5,825 bn and iii) the return from interest and from valuation that produced a Col\$2,137 bn rise in the reserves.

*ii Investment portfolio in national currency:* its balance valued at market prices amounted to Col\$900 bn in December, 2008 lower than at the close of 2007 by Col\$464 bn. This fall was due mainly to: i) Col\$335 bn in net sales of TES, ii) Col\$150 bn and Col\$60 bn in maturities of principal and coupons respectively, iii) the reinstatement of Col\$28 bn in TES B securities to Banco de la República from trust companies and iv) the Col\$2 b devaluation of the portfolio because of the rise in the trading rates for TES in 2008.

*iii Repo operations used to give temporary liquidity:* They had a balance of Col\$1,547 bn at the end of 2008, which meant a drop of Col\$3,856 bn (71%) with respect to the close of 2007.

#### **b. Liabilities**

At the end of 2008, the balance of liabilities was Col\$43,460 bn which exceeded that at the end of 2007 by Col\$1,928 bn (5%). The main sources of the change are given below:



- Government deposits in national currency at the Banco de la República through the National Treasury Office had a balance of Col\$2,487 bn at the close of 2008. This amount was lower than that registered in December, 2007 by Col\$2,174 bn (47%).
- Monetary base: At the end of 2008, the monetary base came to Col\$36,194 bn, an amount higher Col\$3,779 bn (12%) than in the end of 2007.

*c. Equity*

The equity amounted to Col\$19,049 bn, an amount which exceeded that of December, 2007 by Col\$5,831 bn (44%). This was basically a result of the change in the foreign exchange adjustment account. The latter rose Col\$5,825 bn (75%) due to the depreciation of the peso with respect to the dollar. This, as was mentioned, produced an increase in the balance of the international reserves expressed in pesos.

**4. Projected Income and Expenditures in 2009**

For the current year, total income of Col\$1,122.8 bn and expenditures of Col\$1,359.9 bn are estimated. Therefore, a negative operational result of Col\$237.0 bn is projected (Table 30).

The main sources of revenue will be the return from the international reserves (Col\$565.0 bn), the appreciation of the TES portfolio acquired by the Banco de la República (Col\$93.6 bn), commissions received (Col\$106.1 bn) and the exchange rate difference on assets in foreign currency (Col\$178.1 bn).

Although returns on the international reserves were high for the last 18 months due to the appreciation of the commercial paper in the portfolio, the profits are projected to be low in 2009. The United States Federal Reserve's decision to keep their interest rate within a range of between 0% and 0.25% will cause the projected return on the investment of the reserves to be below 1% to the extent to which the interest received from the investments is very low and to which the outlook for greater appreciation for the securities is very limited.<sup>76</sup>

The return on the reserves portfolio that are projected do not incorporate the possible effects of exchange rate variations of the reserve currencies that compose the portfolio. Therefore, the income expected from this is subject to uncertainty with regard to the performance of the dollar exchange rate compared to the euro and yen.

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<sup>76</sup> In 2008, the Fed's benchmark rate started at 4.25% and ended at 0.25%.

Table 30  
Banco de la República profit and loss statement, 2008-2009  
(billions of pesos)

	December	Projected	Annual changes:	
	2008 (A)	2009 (B)	Percentage (B/A)	Absolute (B - A)
<b>1. Income</b>	<b>2,965.9</b>	<b>1,122.8</b>	<b>(62.1)</b>	<b>(1,843.1)</b>
<b>A. Monetary income</b>	<b>2,798.6</b>	<b>967.7</b>	<b>(65.4)</b>	<b>(1,830.9)</b>
1. Interest and return	2,514.0	703.7	(72.0)	(1,810.2)
International reserves	2,119.8	565.0	(73.3)	(1,554.8)
Other interest	13.5	0.0	(100.0)	(13.5)
Liquidity operations: repos and transitory support	311.7	45.2	(85.5)	(266.6)
Valuation on TES	68.4	93.6	36.8	25.2
Valuation of other securities	0.6	0.0	(99.5)	(0.6)
2. Exchange rate differences	224.9	178.1	(20.8)	(46.8)
3. Coins	47.3	75.5	59.8	28.3
4. Other	12.5	10.4	(16.9)	(2.1)
<b>B. Corporate income</b>	<b>167.3</b>	<b>155.1</b>	<b>(7.3)</b>	<b>(12.2)</b>
1. Commissions	123.3	106.1	(14.0)	(17.2)
Banking services	59.0	60.8	3.1	1.9
Trust business	49.4	45.3	(8.3)	(4.1)
Other commissions	15.0	0.0	(100.0)	(15.0)
2. Other	43.9	49.0	11.5	5.1
<b>2. Expenditures</b>	<b>1,644.1</b>	<b>1,359.9</b>	<b>(17.3)</b>	<b>(284.3)</b>
<b>A. Monetary expenditures</b>	<b>1,249.1</b>	<b>899.4</b>	<b>(28.0)</b>	<b>(349.7)</b>
1. Interest and return	955.5	668.8	(30.0)	(286.8)
Reserve requirements on deposit accounts	163.2	105.8	(35.1)	(57.4)
Remuneration on national treasury deposits	708.3	391.0	(44.8)	(317.3)
Costs of monetary contraction operations	15.6	27.6	76.4	12.0
Costs of international reserves management	68.4	144.3	111.0	75.9
2. Exchange rate differences	175.9	68.1	(61.3)	(107.7)
3. Cost of issuing and distributing banknotes and coins	113.9	147.4	29.4	33.4
4. Other	3.8	15.1	301.6	11.4
<b>B. Corporate expenditures</b>	<b>322.4</b>	<b>365.4</b>	<b>13.3</b>	<b>43.0</b>
1. Personnel expenses	206.3	226.6	9.8	20.3
2. General expenses	47.5	51.4	8.2	3.9
3. Taxes	7.2	8.3	15.6	1.1
4. Insurance	6.0	7.1	19.4	1.2
5. Contributions and membership fees	4.6	4.8	5.3	0.2
6. Cultural expenses	8.7	10.0	15.4	1.3
7. Depreciation, provisions, debt repayment and other <sup>a/</sup>	42.2	57.1	35.2	14.9
<b>C. Pension expenses</b>	<b>72.6</b>	<b>95.1</b>	<b>30.9</b>	<b>22.5</b>
<b>3. Operational results (1 - 2)</b>	<b>1,321.8</b>	<b>(237.0)</b>	<b>(117.9)</b>	<b>(1,558.8)</b>

a/ Includes deferred software expenses.  
Source: Banco de la República.

Regarding income from repo liquidity transactions, a reduction of Col\$266.6 bn is estimated as a result of the net debtor position with the financial system. These predictions are consistent with an average annual growth of 11.7% in the monetary base and of the General Treasury's average deposits in Banco de la República, which would increase from Col\$7,581.3 bn in 2008 to Col\$4,523.2 bn in 2009.

Of the total projected for expenses, 66.1% are monetary expenditure which came to Col\$899.4 bn, an amount that is lower with respect to 2008 by Col\$349.7 bn. Among them, the main ones are:

1. Remuneration of Col\$105.8 bn on reserve requirements and Col\$391 bn in remunerations for the Treasury's deposit account, which means a reduction of 43.0% annually for both items. The lower outflow is the result of the decline in the deposits made by the General National Treasury and of the Bank's intervention interest rate. With regard to the reserve requirement, remuneration on the required reserve for checking and savings accounts as well as other demand deposits was eliminated as of February, 2009.<sup>77</sup>
2. The expenses for monetary contraction operations are expected to rise Col\$75.9 bn as a result of Banco de la República's net debtor position with respect to the financial system.
3. The cost of issuing currency (Col\$147.4 bn) with an annual growth of 29.4% based on the coin production programed for the year.
4. Expenditures for personnel will be Col\$226.6 bn which reflect the collective bargaining agreement.
5. Col\$51.4 bn in general expenses. The annual increase for this is 3.1% in real terms, which is associated with higher expenses related to the re-opening of the Gold Museum, etc.
6. Expenditures of Col\$95.1 bn for retirement pensions for which an increase of Col\$22.5 bn compared to 2008 is calculated since the estimated return on the pension portfolio could be Col\$97.5 bn in 2009 compared to Col\$153.8 bn earned the year before. The lower return is shown as a result of projecting the valuation of this portfolio using the interest rates at which securities were negotiated at the end of 2008. However, this does not include the appreciation of the portfolio resulting from changes in interest rates, which contributed to explain the returns in 2008.

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77 BDBR external Resolution 2, January 30, 2009.

## RENDERING OF ACCOUNTS

Banco de la República has a series of instruments that make it easier for economic agents and the general public to understand their decision-making process.

The first is this *Board of Directors' Report to the Congress of the Republic* which, in compliance with what is stipulated in article 5 of Act 31/1992, is presented at the beginning of ordinary congressional legislative periods. The Report includes recent monetary, exchange and credit policies taken provides a view of the future for the economy. Likewise, it includes information on the management policy for the international reserves and the financial situation of the Bank and its outlook. This document is discussed in the third committees of the Senate and House.

Second, there is the quarterly inflation report (*Report on Inflation*) which has become a key tool for the Bank's accountability. The presentation of the report discusses the state of the economy and explains decisions made by the monetary, currency exchange and lending authority during the quarter. This presentation is given by the Governor to the Public Institution TV Channel during which himself answers questions that citizens ask over the phone (toll-free line), by e-mail as well as written ones that are turned in by the audience.

In third place, the Bank publishes its policy decisions through a press release that summarizes the main points of the economic debate over the measures adopted, and later it publishes the minutes of the Board of Directors informing the judgement elements considered in the decision-making of the monetary policy.

A fourth means is the annual publication of the financial state of the Bank in newspapers with wide national circulation as well as its monthly publication both on the Bank's web page and in Banco de la República Journal.

In addition, the Governor and members of the Board of Directors periodically meet with groups of businessmen from different parts of the country in what are called consulting committees in order to exchange opinions on the situation and outlook for the economy and to explain the policies adopted by the Bank in more detail.

It added to the powers that have:

- i) the National Attorney General's office (Procuraduría General de la Nación) over all employees in the entity who are subject to the Uniform Disciplinary Code
- ii) the President of the Republic performs the functions of inspection, surveillance and control on Banco de la República. The inspection has been delegated to the Financial Superintendence, while the control function has been delegated to a special supervisor
- iii) the Office of the Comptroller (Contraloría General de la República) has jurisdiction to the extent that Banco de la República is involved in fiscal management
- iv) the external auditor, Price Waterhouse Coopers which provides financial auditing services and...
- v) the jurisdiction of administrative litigation responsible for resolving the suits that have been filed against administrative actions taken by the Board of Directors of the Banco de la República and the Bank as executor of monetary, currency exchange and lending policy.

Furthermore, the following are established at the Banco de la República:

- i) An Audit Committee whose purpose is to make sure that the Bank's financial information is correctly presented and do follow up on the aspects that they consider significant with respect to the structure and functioning of the Institution's internal control system.
- ii) A Coordinating Committee of the Internal Control System, a consulting agency that evaluates the efficiency and efficacy of the Internal Control System and recommends corrections or modifications that are necessary to achieve the objectives.
- iii) The Department of Internal Control created in compliance with Act 87, November 29, 1993.
- iv) The Operating Risk and Business Continuity Unit, which is in charge of handling the operating risk management systems and the continuity of the Bank's tasks.

## TRANSPARENCY

Aware of the importance of total transparency in their processes and policies as well as of constantly improving them, the Banco de la República has participated in the national transparency index during the last few years. This index, which is organized by the Transparency for Colombia Corporation, measures the level of transparency and the risks of corruption in public entities. In the results corresponding to 2005, the most recent evaluation available, the Bank was one of the three entities on the national level with the best ratings in the different factors that were analyzed. Transparency for Colombia Corporation emphasized that the Bank had advanced in preventative controls, opening up room for citizen participation and publishing its results periodically.

The bank has likewise participated in the survey of the national institutional environment and performance organized by the DANE. The objective for this is to find out what the perspective of the functionaries is regarding the environment

(credibility with regards to the rules, policies and resources) and the institutional performance (management results, accountability and labor welfare) of their organizations. The results for the Banco de la República in 2007 put it in ninth place in a set of 149 entities.

Furthermore, the Bank's web page publishes the institution's purchasing plan, which includes the goods and services incorporated into the investment budget as well as the institution's operating budget. The goods and services contracting history is also published.

Last of all, as of 2007, a link was added to the Bank's web page for people who were interested in and had the training to be part of the institution to learn about the job possibilities that the Bank offers. In 2008, 15,529 resumes were registered by this means and included a variety of professions, ages and experience.