

# Fiscal issues and central banks in emerging markets: the case of Colombia

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## 1. Introduction

This paper reviews the relationship between monetary policy and fiscal policy, on the basis of the Colombian experience over the past 10 years. According to the Colombian constitution, the main function of the Banco de la República (BRC; Colombia's central bank) is to formulate and execute monetary policy with the goal of preserving price stability. Therefore, the BRC is concerned with all matters that affect directly or indirectly its ability to achieve or maintain price stability. Fiscal policy is one of them.

In general, there are two aspects that help explain the relationship between fiscal and monetary policies. The first has to do with fiscal policy's impact on the *short-term* management of monetary policy and inflation. This is of great relevance for countries such as Colombia, which is currently in a process of decreasing inflation towards price stability. In this regard, the BRC has adopted quantitative inflation targets on a one- to two-year horizon, and has made important advances over the past few years. The second aspect is *long-term* fiscal sustainability. As is well known, in a country where the growth in debt is (judged) unsustainable, there is no monetary independence, and the economy encounters high levels of inflation.

Section 2 of the paper describes how the BRC assesses the short-term effects of fiscal policy, and the methods used to analyse the sustainability of fiscal and monetary policies. Section 3 focuses on the recent evolution of public debt and its long-term sustainability. The final section examines the capability of the Colombian economic authorities to establish and maintain a countercyclical macroeconomic policy.

## 2. The short-term relationship between fiscal and monetary policies

During the past 10 years, Colombia's fiscal policy has undergone a series of radical changes. There were a number of tax reforms, a strong expansion of public expenditure, and an increasing fiscal deficit in the second half of the 1990s. As illustrated by Graphs 1-4:

- Expenditure of the non-financial public sector rose from 22% of GDP in 1991 to 39% 10 years later. The central government accounts for the majority of this expansion, followed by the departmental and municipal governments, the social security system, and the decentralised agencies.
- Public revenues rose from 22% of GDP in 1991 to 35% in 2001. Among them, tax revenues went up from 14% of GDP to 17% in 2001; the remaining public revenues are associated with the operating income of public enterprises - oil, electricity, coal, etc. Regarding taxes, the value added and income taxes have been adjusted regularly. Additionally, import tariffs were reduced significantly in the early 1990s, with some later modifications. In some years, oil taxes increased, while consumption subsidies decreased, particularly in the case of public services.

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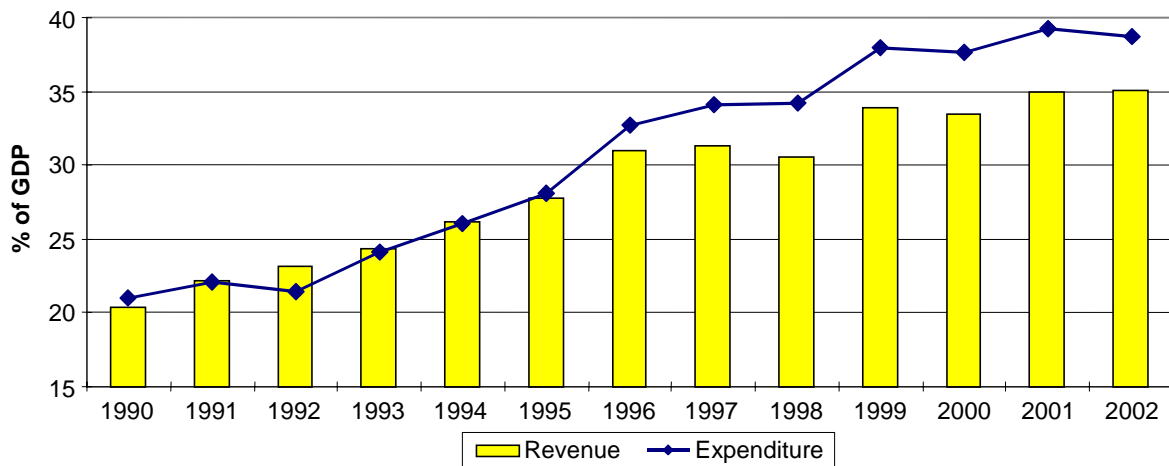
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- The balance of the public sector at large fell from equilibrium in 1991 to a deficit of 5.5% of GDP in 1999. During the following two years, the deficit decreased to approximately 3.3% of GDP, and for 2002 it was projected to reach 4%. The central government's deficit climbed from 0.2% of GDP in 1991 to a projected 7.0% in 2002.

The fiscal issues just described have affected monetary policy in recent times. The following subsection outlines how the BRC identifies and evaluates the influence of fiscal actions on the short-term management of monetary policy.

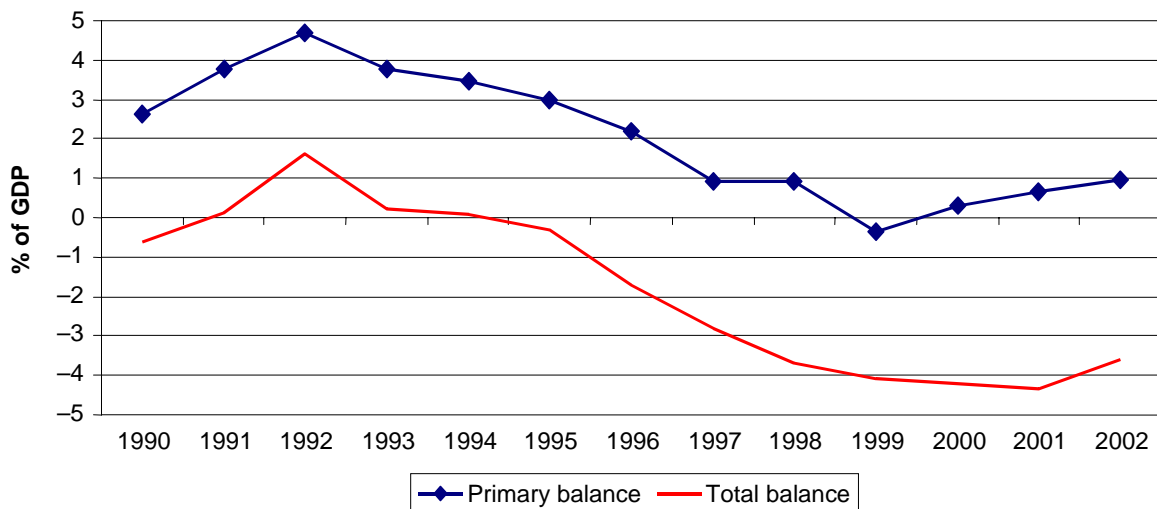
Graph 1

**Revenue and expenditure of the non-financial public sector**

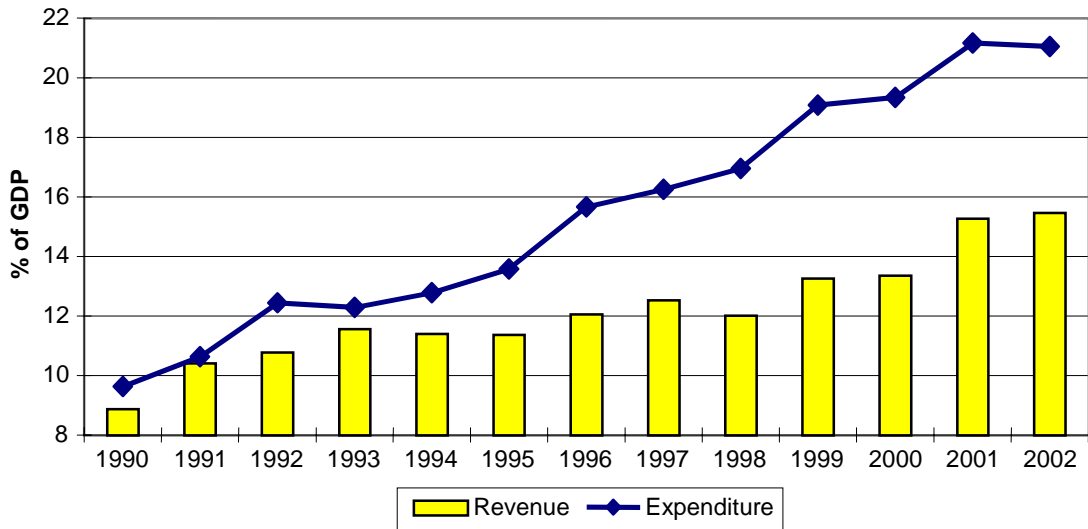


Graph 2

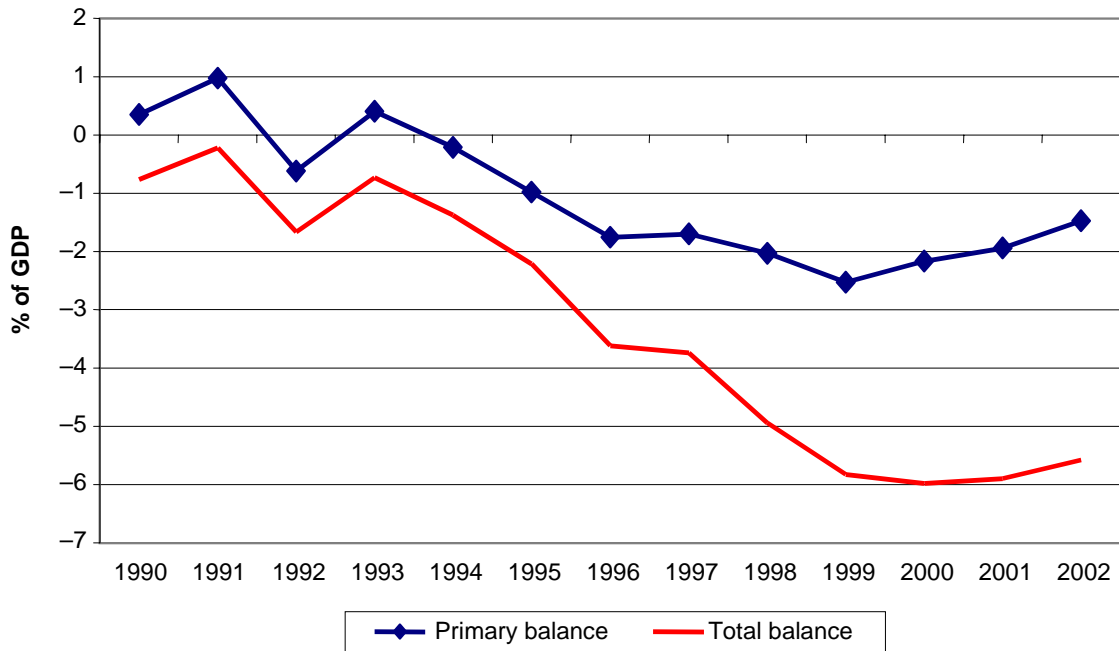
**Total and primary balance of the non-financial sector**



Graph 3  
**Revenue and expenditure of the central government**



Graph 4  
**Total and primary balance of the central government**



**Methods to assess the fiscal effect**

The economic literature describes a variety of channels through which fiscal policy affects monetary policy and inflation in the short term. The BRC has been using various methods to assess these effects in Colombia. A synthesis of these channels and methods follows:

- The effects of changes in taxes, utilities' prices, subsidies and commercial tariffs on inflation are particularly important for central banks with inflation targets, and in countries where taxes, subsidies and tariffs are modified frequently. Even though these changes technically have an effect on the price level, with only a transitory impact on inflation, the evidence shows that these effects can be permanent when the changes have an impact on inflation expectations. The input-output matrix is the main instrument used by the BRC to assess these impacts. It is assumed that the impact of changes in value added tax on the CPI is half the impact derived from the matrix.<sup>2</sup> This methodology has not been suitable for determining the impact of significant changes in administered prices (such as petrol) on inflation.
- The effect of fiscal policy on expenditures will be greater if there are a large number of agents whose expenditure decisions are based on their current disposable income. The effect on interest rates and exchange rates depends mainly on the structure of the government's financing. When there is an increase in the government's financing needs, and such needs are financed domestically, there will be upward pressure on interest rates, and a crowding-out of private investment. Conversely, if the government finances itself externally, and the government is clearly solvent, an appreciation of the exchange rate tends to occur, and the production of tradable goods is displaced. If there are doubts about the long-term sustainability of the public debt, the fiscal policy also affects the risk premium and generates unexpected movements in the exchange rate and interest rates. Under this scenario, there is an impact on production, on inflation and on the credibility of the government and of the central bank. The control of short-term monetary policy becomes particularly difficult.

During some periods in the 1990s, both the external financing of the fiscal deficit and the revenues from privatisations and concessions had a significant impact on the exchange rate. More recently, doubts about the government's ability to access external financing resulted in a highly volatile exchange rate. Even though there is no strong econometric evidence of the relationship between the fiscal deficit and interest rates, consumption and investment, the stylised facts indicate that interest rates tend to increase in periods of high domestically financed fiscal deficits.

On the other hand, following the IMF methodology, the financing accounts of the public sector are incorporated into the macroeconomic programming exercise carried out by the BRC and the Ministry of Finance. This exercise allows an evaluation of the financing space available for the private sector, and identifies eventual pressures on interest rates, taking into account the inflation target as well as projections of the balance of payments and economic growth. The size of the sustainable current account deficit is determined by the assumptions on the external financing of the public and private sectors, as well as the accumulation of international reserves. This information is used to determine a real exchange rate compatible with the financing restrictions.

Currently, the BRC's Economic Research Department is working on a public debt module within their model of monetary policy transmission mechanisms. In this model, higher indebtedness is transmitted to the interest paid on the debt, determined endogenously, and affects uncovered interest rate parity. Changes in the uncovered parity cause an increase in expectations of devaluation. Higher devaluation generates pressure for higher prices on imported goods and, through the Phillips curve, increases core inflation. An increase in interest rates is a usual policy reaction. According to this model, the effect of an expanded fiscal deficit on economic activity depends on: (i) the direct impact of expenditure on output growth; (ii) the reactions of the exchange rate and spreads to an increase in public sector indebtedness; (iii) the expected pass-through of devaluation into inflation; and (iv) the aggregate demand response to changes in the interest rates and the exchange rate.

Finally, when excessive increases in public wages (as occurred in the 1990s) flow through to the private sector, real wage increases above the growth of productivity lead to falls in employment and investment and accentuate the pressure for higher prices. This may cause the BRC's anti-inflation policies to lose the support of the government and society at large.

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<sup>2</sup> The matrix calculates the maximum impacts of such changes on the consumer and producer price levels.

### 3. The long-term sustainability of the public debt and monetary policy

As mentioned in the introduction, the long-term effect of fiscal policy on monetary policy is closely related to the sustainability of the public debt. In times of persistent real growth in public indebtedness, the central bank must determine if the fiscal initiatives are sufficient to reach a desired fiscal position in the future. Moreover, the central bank must assess whether these actions jeopardise its ability to achieve and maintain price stability, or compromise the credibility of economic policy.

If fiscal adjustment does not take place to reverse an unsustainable debt path, it is foreseeable that the domestic and international markets would not lend new resources to the government, or they would only do so at exceptionally high interest rates. Furthermore, market agents may expect the government to press for higher inflation as a way of reducing the real value of its debt, rather than increasing taxes and/or cutting expenditures. The subsequent loss of confidence in the economy, along with increasing concerns about inflation, interest rates and devaluation of the exchange rate, would be harmful to both the private and public sectors. These issues could lead the central bank to relax its primary goal of price stability.

Beyond the dynamics of the public debt to GDP ratio, market agents assess fiscal sustainability through a wide set of economic variables related not only to the public finances but also to the remaining macroeconomic indicators. Such variables may be examined through the familiar “primary balance to GDP ratio”, necessary to keep stable the ratio of public debt to GDP. Under this benchmark approach, such primary balance results from the intertemporal budget constraint; moreover, fiscal sustainability also depends upon the projected real interest and economic growth rates.

An additional set of external and internal indicators, which reflect the solvency and vulnerability positions of the country, must also be assessed. This will provide policymakers with valuable information to improve their public debt management, and to reduce the vulnerability of the country to internal and external shocks. The management of the debt is closely associated with the magnitude and sustainability of the debt itself. The optimal long-term debt management strategy is based on minimising the debt service cost, as well as reducing the exposure to main risks (market, rollover, liquidity, macroeconomic risk, etc). Such optimal strategy dictates that debt repayments do not exceed sustainable amounts.<sup>3</sup>

In sum, debt sustainability is an integral element of macroeconomic stability. Interactions between different policy variables (debt, public revenues and expenditures, etc) and outcome variables (GDP, exports growth) as well as the dynamics of the international economy (external interest rates) jointly determine whether the country is on a sustainable debt path.<sup>4</sup>

#### Dynamics and profile of the current public debt

During the first half of the 1990s, the Colombian public debt to GDP ratio decreased 13 percentage points, as a result of the fiscal balance, a higher GDP growth rate, and the prepayment of the foreign public debt, with resources coming from the sale of assets and from telecommunications licence fees. However, from 1995 onwards, this ratio has increased sharply to its current unprecedented level. The following information on the stock, currency composition and term structure of the current public debt is relevant for the analysis of its sustainability:

- The gross public debt rose from 26% of GDP in 1995 to 61% by 2002. Throughout this period, the evolution of the public indebtedness in domestic and foreign currency was quite similar. The internal debt to GDP ratio increased from 12% to 31%, whereas the external debt to GDP ratio went up from 14% to 30%. After discounting the financial liabilities among the public agencies, the resulting net public debt to GDP ratio, in 2002, climbed to 52%. Such a concept of net public debt is the one relevant in the analysis of debt sustainability.
- Currently, 85% of the consolidated public debt is incurred by the central government. The financial liabilities of the remaining public agencies (departmental and municipal general

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<sup>3</sup> Arbeláez and Roubini (2002).

<sup>4</sup> Ghani and Hyungsoo (1995).

governments as well as public enterprises) are relatively small, and have shown a decreasing trend. Therefore, the sustainability analysis of the Colombian public indebtedness is essentially an analysis of the sustainability of the central government's debt.

- The 1998-99 crisis in the financial system raised the level of public indebtedness. To counteract the crisis, the central government issued bonds equivalent to nearly 1.5% of GDP in 1999, and a further 3.9% of GDP in 2000. Moreover, it closed some public financial institutions. In addition, the government has been facing some contingent liabilities, particularly those associated with the pension system. The present value of these liabilities has been estimated at 193% of GDP by Clavijo (2002). This type of public debt is not taken into account in the fiscal sustainability analyses.
- The service cost of the public debt (amortisations and interest payments) has been increasing sharply in recent times. In the case of the central government, such cost went up from 29% to 77% of current revenues between 1995 and 2001. Nowadays, 32% of the central government's current revenues (4.1% of GDP) are devoted to meeting interest payments.
- As of December 2002, the breakdown of the central government's financial sources was: 39% in bonds issued in the Colombian capital market; 30% in foreign bonds; and 14% in foreign loans. Currently, 17% of the central government's debt portfolio is attributable to unexpected events such as the Housing Law, the public banking bailout and liabilities related to other public entities. The leading domestic security issued by the central government, known as the TES B bond, was owned 38% by the public sector and the BRC (including 13% by the social security system and 14% by public enterprises); 27% by the financial sector; and 36% by the private non-financial sector.
- As of December 2002, 66% of the debt of the central government paid fixed interest rates, 14% floating rate, and 20% semi-floating rate (multilateral debts). The modified duration of this portfolio is 3.5 years, and its average maturity is 6.3 years. The breakdown of the interest rate for TES Bs was: 49% fixed rate (in pesos); 19% indexed to CPI; 25% indexed to UVR (real value units; an alternative form of inflation indexation); and 7% indexed to the US dollar. The average life of such debt is 6.2 years.

### Debt sustainability concepts

Theoretically, a fiscal policy is sustainable if the government's intertemporal budget constraint is satisfied. In terms of present value, it means that the path of future public revenues minus the path of future public expenditures (less interest payments) is at least equal to the current value of the public debt. The difference between public revenues and public expenditures defines the primary fiscal balance. Through this present value analysis, the current public indebtedness tends to zero in the very long term.<sup>5</sup>

The stability of the public debt to GDP ratio provides a practical way to evaluate the sustainability of a given indebtedness level. If such a ratio follows a stable path, the current debt level is sustainable, and there should be no problems in meeting future repayments. By contrast, if the ratio increases alarmingly for a considerable span of time, the fiscal stance must be modified to reverse this trend. A high but stable public debt to GDP ratio is as sustainable as a lower one, albeit the fiscal effort to sustain an initial high level of indebtedness is greater.

Various conclusions may be derived from this approach. The first one is that, in principle, the public debt must grow at a real rate lower than the effective interest rate.<sup>6</sup> If this is not the case, the path of the public debt becomes explosive. The second conclusion has to do with the dynamics of both the

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<sup>5</sup> The discount factor used in this analysis is given by the ratio of economic growth rate to real interest rate. When the real interest rate is higher than the economic growth rate, as it frequently is on average, the discount factor is lower than one, and therefore the present value of the public debt is equal to zero.

<sup>6</sup> According to Blanchard and Fischer's (1992) definition, the effective interest rate is equal to the inverse of the discount factor, ie  $\frac{1+r}{1+g} - 1$ , where  $r$  is the real interest rate and  $g$  is the real economic growth rate.

fiscal imbalance and the public debt in a large group of emerging economies, among them Colombia. Because these countries are running primary deficits, and have a significant stock of public debt, it is imperative to run primary surpluses as soon as possible, so that the public debt becomes sustainable.

The third conclusion is precisely related to the size of the primary surplus required. The size depends on the various macroeconomic scenarios, characterised by alternative combinations of economic growth rates and real interest rates as well as by the public debt to GDP ratio, considered sustainable.<sup>7</sup> By definition, the key indicator of sustainability - primary balance to GDP ratio - is a medium- and long-term concept. It is not advisable to make sustainability analyses on the basis of observed or projected short-term data. Such analyses should be very careful to include a long-term horizon, as well as the relationship between public revenues and expenditures and other pertinent macroeconomic variables.

Finally, given that a sustainable fiscal programme depends on the relative uncertainty of fiscal and macroeconomic variables, it is crucial to foster sufficient credibility for the public policy. The degree of confidence in the government's ability to achieve a sustainable debt path, as well as the overall expectations of the economy as a whole, are important influences on access to both the internal and external financial markets.

### **Evidence of debt sustainability in Colombia**

Graphs 5 and 6 illustrate the evolution of the public debt and primary balance for both the central government and the public sector at large since 1990. At the beginning of the 1990s, the central government had a primary surplus to GDP ratio of 1%. From 1993 onwards, this ratio became increasingly negative, reaching a deficit of 2.5% of GDP in 1999. In 2001, the primary balance to GDP ratio for the government was -1.9%, while the consolidated public sector registered a primary surplus to GDP of 0.6%. According to a BRC analysis, the leading cause for the increasing indebtedness of the central government through the 1990s was the evolution of the primary deficit; see Hernández et al (2000). Graph 7 illustrates the dynamics of both the real interest rate and the rate of economic growth. The wide gap between these two variables, which hit a maximum of 18 percentage points during the second half of the 1990s, led to the further expansion of the debt to GDP ratio.

The various sustainability studies done in Colombia suggest that in order to maintain the current net public debt to GDP ratio (of 50%), it is necessary to achieve fiscal primary surpluses of 2 to 3% of GDP. Taking into account the contingent liabilities, particularly those related to the pension system, the public sector would have to add 0.5% of GDP to such primary surpluses.<sup>8</sup>

Posada and Arango's (2000) sustainability findings indicate that the public sector must generate a fiscal primary surplus of 1.5 to 2% of GDP, in order to stabilise the public debt to GDP ratio at 39%. This study uses a time horizon of 50 years, an average (steady state) GDP growth rate of 4%, and an estimated real interest rate on public debt of 7.15%.<sup>9</sup> Nevertheless, it is important to realise that the public debt to GDP ratio is now 12 percentage points higher, and the potential growth rate of GDP is near 3%.

A more recent study, Clavijo (2002), shows that the fiscal primary surplus to GDP ratio necessary to keep the ratio of public debt to GDP stable at 50% falls between 2.5 and 3%. These figures are derived from more plausible scenarios, among them a real interest rate of 8%, and an economic growth rate of 2 to 3%. Arbeláez et al (2002) analyse a wide range of debt sustainability scenarios, including not only the steady state model (or benchmark approach), but also the model used by the central government itself. Assuming a permanent growth rate of 3%, and a permanent real interest rate of 7.5%, the primary surplus required to stabilise the public debt to GDP ratio at 50% is 2.25%.

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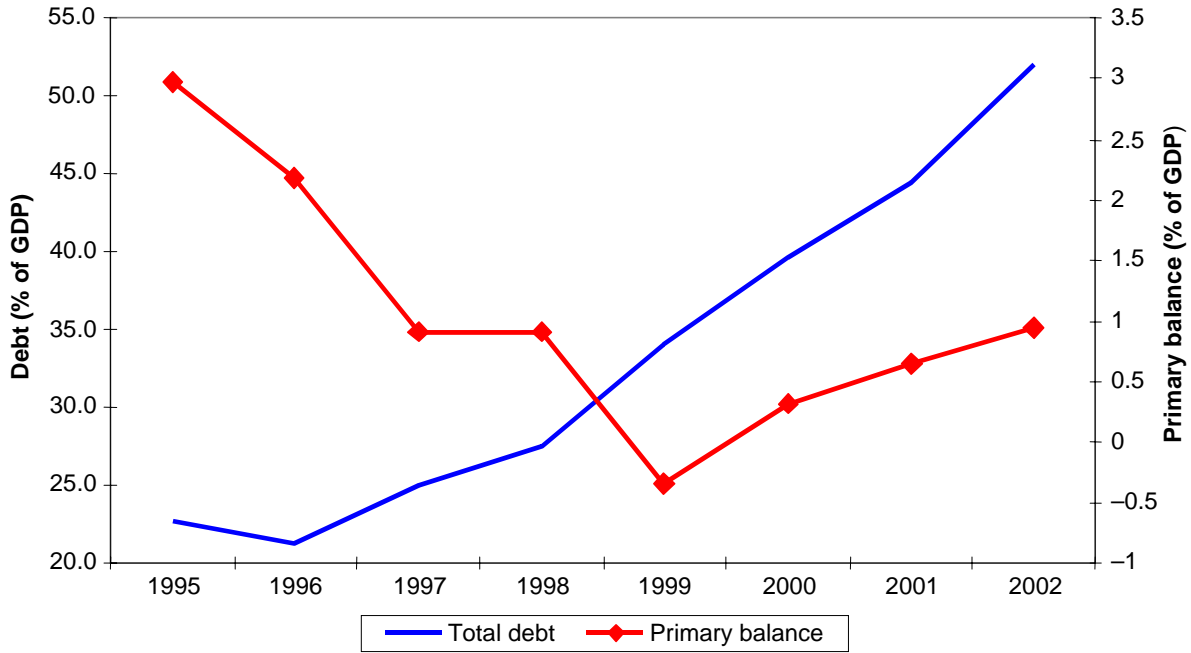
<sup>7</sup> An extension on determinants of debt sustainability could include the inverse relation between the seigniorage and the debt to output ratio. See Lozano (2001).

<sup>8</sup> Clavijo (2002, p 19).

<sup>9</sup> This real interest rate is estimated using the average yield of the US Treasury and the average level of the spreads of Colombian sovereign debt.

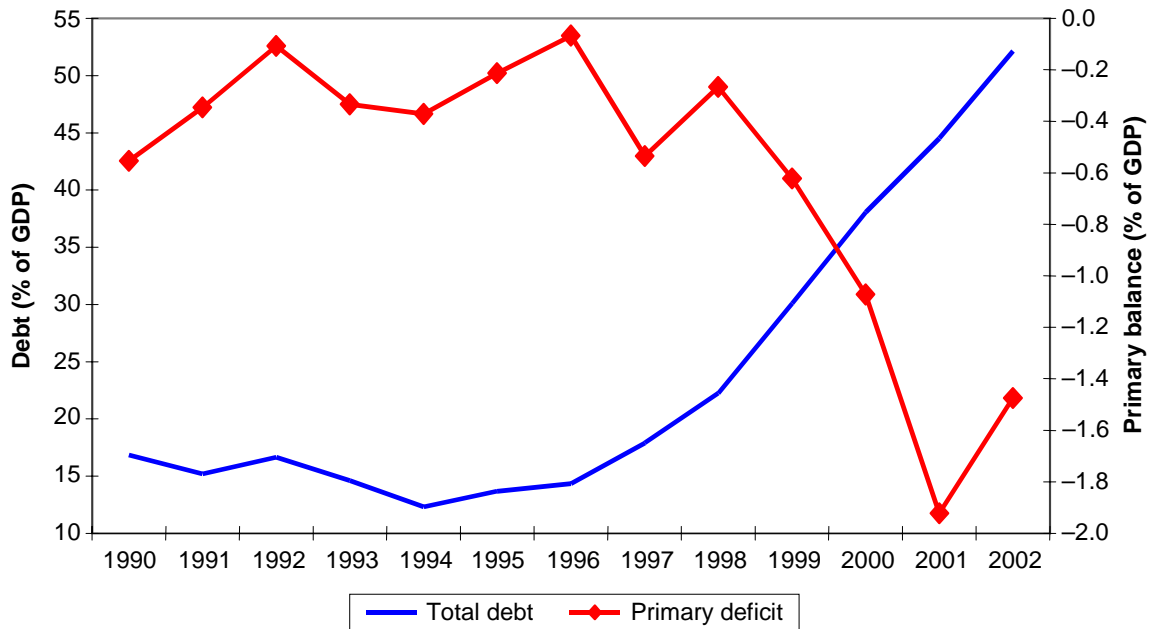
Graph 5

Primary balance and net debt of the non-financial public sector



Graph 6

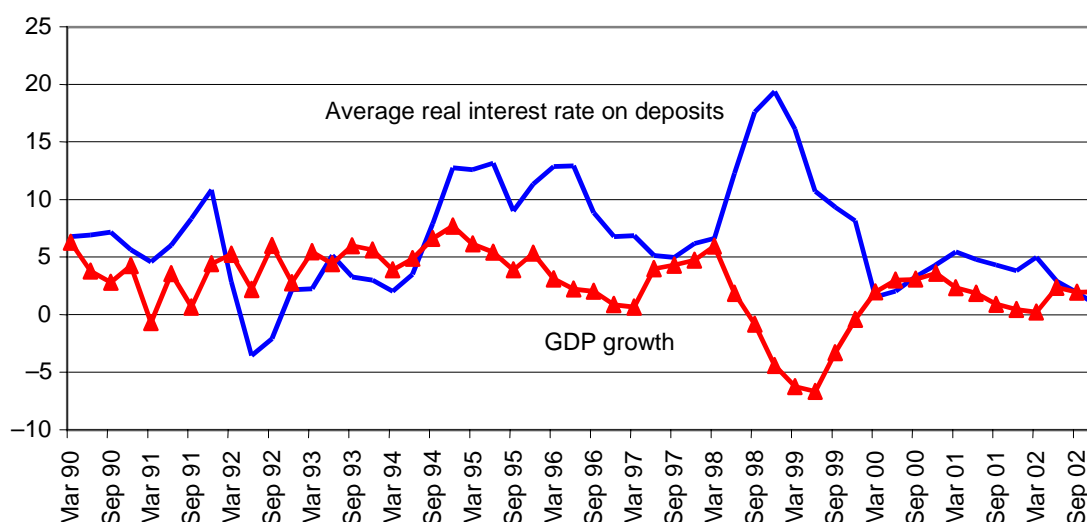
Primary balance and debt of the central government





Graph 7

## Real interest rate and economic growth



The medium- and long-term projections of the fiscal accounts, based on the government's model, are not surprising. This model concurs with the recent IMF Standby Programme for Colombia, which assumes an average medium-term economic growth rate of 3.6% for 2003-10. Under this programme, the fiscal deficit would decline from an expected value of 4% of GDP in 2002 to 2.5% in 2003 and 2.2% in 2004, which will smooth the public debt trend. The model takes into account the fiscal effects of the economic reforms approved between 2001 and 2002: tax reform (Law 788 of 2002); expenditure reform (Law 617 of 2002); transfers reform (Legislative Act 1 of 2001); pension system reform (Law 797 of 2002); and restructuring, merging and closing of some government departments and agencies (Law 790 of 2002).<sup>10</sup> As Graph 8 shows, under this scenario, the net public debt would reach nearly 60% of GDP by 2010. If it were not for the above-mentioned reforms, the debt would reach 87% of GDP. The estimated level of 60% could still require an additional primary surplus of about 1.8% of GDP, in order to maintain the fiscal policy.<sup>11</sup>

The following solvency and vulnerability indicators complement the previous debt sustainability analysis: (i) external indicators such as reserves/short-term external debt, reserves/imports, external debt/imports, and external debt/exports; (ii) central government indicators such as tax revenue/debt service and interest payments/total revenue; (iii) non-financial public enterprise indicators such as their debt/GDP. Table 1 displays the behaviour of these ratios in the period 1990-2001, and the current estimate for 2002.

Regarding the external vulnerability indicators, the reserves to short-term external debt ratio, which is a measure of *reserve adequacy* in countries with uncertain access to capital markets, did not show a clear tendency during the second half of the 1990s. The reserves to imports ratio averaged 104% in 1990-94. Subsequently, it went as low as 64% in 1998. By 2001, it increased to 86%, close to the 95% average level predicted for 2002.

<sup>10</sup> This baseline scenario does not contemplate some potential expenditure shocks, associated with the country's increasing investment needs in the military, justice, infrastructure and social sectors.

<sup>11</sup> Arbeláez et al (2002, p 17).

Table 1

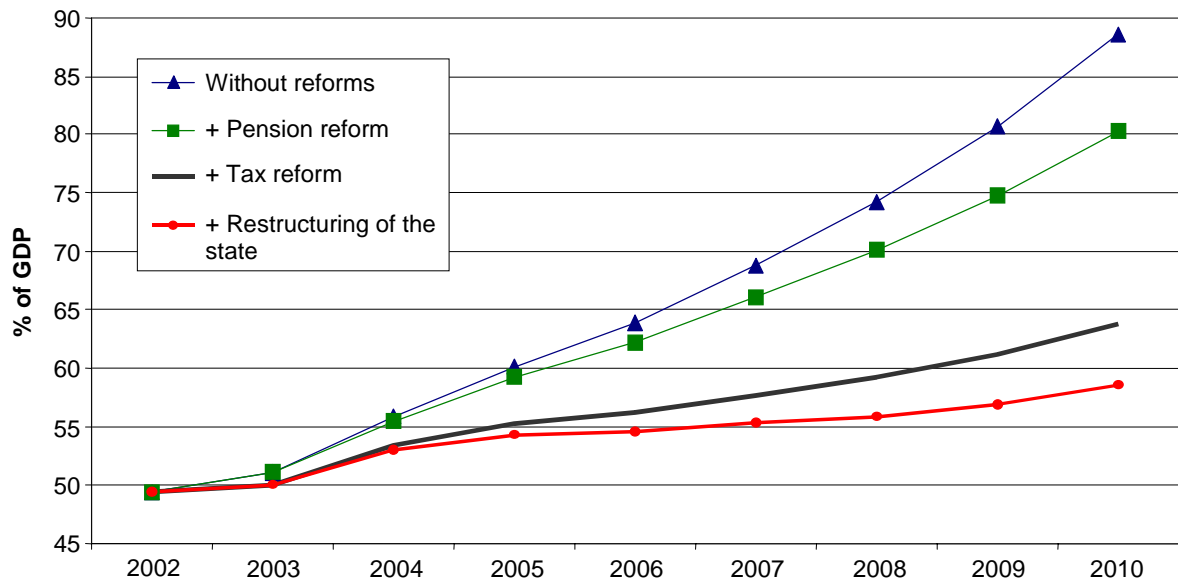
## Colombia: selected economic indicators

	Average 1990-94	1995	1996	1997	1998	1999	2000	2001	2002e
<b>General indicators</b>									
GDP (USD billions)	59.8	92.5	97.2	106.7	98.4	86.2	83.2	82.4	80.5
GDP (annual % change)	4.3	5.2	2.1	3.4	0.6	-4.2	2.7	1.4	1.6
Exports <sup>1</sup> (USD billions)	7.6	10.2	10.5	11.5	10.9	11.6	13.1	12.2	12.1
Imports <sup>1</sup> (USD billions)	7.2	12.9	12.7	14.3	13.6	9.9	10.7	11.8	11.3
Reserves (USD billions)	6.9	8.4	9.9	9.9	8.7	8.1	9.0	10.2	10.7
<b>NFPS<sup>2</sup> fiscal indicators</b>									
Fiscal deficit (% of GDP)	-0.1	-0.3	-1.7	-2.8	-3.7	-4.1	-4.2	-4.3	-4.4
Expenditure <sup>3</sup> (COP trillions)	10.0	23.7	32.9	41.5	48.1	57.5	65.9	73.8	80.0
Revenue <sup>3</sup> (COP trillions)	10.1	23.5	31.2	38.1	42.9	51.3	58.6	65.6	71.1
Debt (COP trillions)	...	21.9	25.7	36.5	48.7	63.5	84.1	101.4	110.1
External debt <sup>4</sup> (COP trillions)	0.7	1.6	1.3	1.2	1.5	1.3	0.4	0.7	1.3
Interest (COP trillions)	1.4	2.8	3.9	4.5	6.4	5.7	7.9	9.4	10.2
<b>Sustainability indicators (%)</b>									
Reserves/short-term external debt	...	94.0	110.0	112.0	97.0	94.0	114.0	104.0	106.0
External debt <sup>5</sup> / imports	287.0	204.0	244.0	241.0	269.0	370.0	342.0	336.0	335.0
External debt <sup>5</sup> / exports	249.0	259.0	295.0	298.0	335.0	317.0	278.0	326.0	313.0
Reserves/imports	104.0	66.0	78.0	69.0	64.0	82.0	85.0	86.0	95.0
External debt/GDP	32.0	28.0	32.0	32.0	37.0	43.0	44.0	48.0	47.0
CG <sup>6</sup> tax/ debt service	277.0	339.0	216.0	196.0	168.0	122.0	138.0	129.0	128.0
CG <sup>6</sup> interest/ revenue	11.0	13.0	18.0	19.0	28.0	31.0	34.0	30.0	32.0
NFPS <sup>2</sup> interest/ revenue	14.0	12.0	13.0	12.0	15.0	11.0	13.0	14.0	14.0
NFPS <sup>2</sup> debt/GDP	...	26.0	26.0	30.0	35.0	42.0	48.0	54.0	54.0

<sup>1</sup> Balance of payments basis. There was a methodological change in 1994 with the adoption of the IMF's BoP Manual V. <sup>2</sup> Non-financial public sector <sup>3</sup> Net of transfers. <sup>4</sup> Short-term external debt including BRC, decentralised government agencies, central government, banks and other financial corporations. <sup>5</sup> Since 1994, external debt has included leasing and securitisation. <sup>6</sup> Central government.

Source: BRC.

Graph 8

**Net debt of the non-financial public sector: 2002-10**

On the other hand, the external debt to exports ratio measures the debt trend, which is closely related to the repayment capacity of the country. In the period 1990-94, this ratio was 249%, on average. By 1998, it increased to 335%, and by 2001 it was 326%. Likewise, the external debt to GDP ratio, which is useful for relating debt to the resource base, rose between the first and the second half of the 1990s.

According to some international institutions, vulnerability is often greater for smaller and emerging market countries because their economies may be less diversified, have a smaller base of domestic financial savings, and less developed financial systems. Moreover, they could be more susceptible to financial contagion through the relative magnitudes of capital flows.<sup>12</sup>

The reversal in public sector indicators between the first and the second half of the 1990s is clear. In the period 1990-94, the tax revenue to debt service ratio (for the central government) was, on average, 277%. Thereafter, this index decreased, and by the end of 2001 it went down to 129%. The interest payments to revenue ratio (also for the central government) averaged 11% in the period 1990-94. Thereafter, it went up to 30% by 2001. In the last few years, the high cost of the central government's debt along with its dwindling tax revenues have become increasingly evident.

#### 4. Countercyclical macroeconomic policy in Colombia

In spite of a strong negative external shock, in 1998, Colombia's monetary policy was particularly restrictive, mainly due to the following factors (not necessarily in order of importance):

- An inflation rate close to 16%, and increasing inflation expectations.
- A current account deficit of nearly 7% of GDP in the first quarter of the year, displaying an increasing tendency.
- Unsustainable growth of the economy in previous years.

<sup>12</sup> IMF and WB (2000).

- High and rising fiscal deficit and public expenditures as well as strong increases in the foreign debt spread.
- High and rising foreign debt of the private sector.
- Underdeveloped markets for hedging currency risk.
- The exchange rate system was a crawling band.
- Evidence of a high pass-through of the exchange rate to inflation and a new government that promised a large devaluation of the real exchange rate.
- The closing of the international capital markets and the relatively high interest rates in the United States.

These factors led to an increase in foreign (US) interest rates, devaluation expectations and the country risk premium. In addition, there was a growing dissatisfaction evident with economic policy as well as with the new government's lack of commitment to fiscal adjustment. The monetary policy response was then to elevate the intervention rate of the BRC, to intervene in the foreign exchange markets, and to devalue the exchange rate band.

By contrast, during the period 2000-02, monetary policy was expansive mainly because of the following conditions (again not necessarily in order of importance):

- Single digit inflation rates as of the second half of 1999, and markets with decreasing inflation expectations.
- Equilibrium (or a small surplus) of the current account of the balance of payments.
- A negative GDP gap and very high unemployment rates.
- An Extended Facility Agreement signed with the IMF for three years, as of late 1999.
- A high fiscal deficit with a decreasing trend, consistent with the IMF agreement, as well as a high public debt but with a low short-term component. As of the second half of 2000, there was a strong reduction in foreign debt spreads.
- A fragile financial sector and evidence of a credit crunch.
- A reduction in the external debt of the private sector, and a rapid development of the hedging market.
- A floating exchange rate regime and the opening of international capital markets.
- A strong devaluation of the real exchange rate before the implementation of the free-floating system in September 1999.
- The reduction of the intervention rate by the US Federal Reserve, in the last 18 months.

All these factors helped reduce foreign interest rates, and increase the trust and credibility in monetary policy. Under these conditions, the BRC's response was to reduce its intervention rate, to float the exchange rate and to supply a large amount of liquidity. The inflation rate was lowered, and the BRC's targets were easily met in 2000 and 2001. For 2002, inflation of 6.9% was expected (as of September), above the 6% target, mainly as a result of the exchange rate devaluation as well as a considerable increase in the prices of some food products. The fiscal policy, as was expected from the deficit and debt indicators, was not expansive.

In sum, the chief factors that determined the (in)ability of the Colombian economic authorities to carry out countercyclical macroeconomic policies were: (i) the size and sign of the output gap; (ii) the inflation rate and its deviation from the BRC's long-term target; (iii) the level, cost and term structure of the foreign and domestic debt of both the public and private sectors; (iv) the currency composition of the public and private sectors' debt as well as the degree of development of the hedging markets; and (v) the pass-through of the exchange rate to prices.

More exactly, by 1998, when inflation, inflation expectations, the pass-through, US interest rates, and the fiscal and current account deficits were high, and despite the negative external shock faced by the Colombian economy, the country's economic authorities were not able to carry out effectively a countercyclical macroeconomic policy. In more recent years, when inflation, the pass-through and the current account deficit have been low, yet unemployment and the level of the public debt have been

high and rising, the countercyclical policy has been limited to monetary policy decisions. The effectiveness of this policy will largely depend on the level and tendency of the public indebtedness, and particularly on the degree of commitment of the government and congress to its sustainability. The reforms of taxes, the pension scheme and the labour system, approved in late 2002, are a positive step in this direction.

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