



FINANCIAL STABILITY REPORT
DECEMBER 2002

BANCO DE LA REPÚBLICA

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SUMARY AND CONCLUSIONS

✕ One of the main functions of the Central Bank is to ensure that the economy's payment system operates on a firm and efficient basis. The stability of the financial system is essential to this task. For this reason, the first edition of the Financial Stability Report was published by Banco de la República in July 2002.

✕ This is the second edition of the report. Like the first, it continues to present the Bank's view of how the financial system has evolved and the nighights most important developments in recent months.

✕ Several of the trends mentioned in the last report became more pronounced in 2002, in particular the recovery in profitability of the financial system and the consolidation of the trend towards an improvement in the quality of its holdings.

✕ The July report summarized a tendency to reassign assets within the balance sheet of financial institutions, characterized by a sharp decline in the share of credit within the banking industry. This trend began to reverse itself in recent months, particularly for certain agents in the financial system.

✕ As indicated herein, the balance sheets of the financial system and those of its private clients have improved, although slowly. However, both sectors remain exposed to shocks posed by macroeconomic variables.

✕ Within this framework, the current edition of the Financial Stability Report outlines the principal trends in the economy to analyze the aggregate debt in the non-financial sector, recent performance of the system's major debtors, and performance of the financial system itself.

RECENT PERFORMANCE OF LEADING DEBTORS AND THE RISKS TO THE FINANCIAL SYSTEM DERIVED FROM EXPOSURE TO THEM

Corporate Sector

✕ Exposure of the financial system to the private corporate sector increased slightly during the first six months of 2002, following a persistent decline between 1998 and 2001. This increase was due primarily to the trend in the commercial lean portfolio.

✘ The risk posed to the financial system by the major sectors of the economy continued to abate, insofar as the quality of the portfolio has improved. Although indexes for the building sector remained unfavorable, the quality of its loan portfolio has improved steadily. If the sector maintains its momentum, this trend will likely continue, thereby reducing the risk to the financial system.

✘ A limited group of companies regulated by the Securities Commission (Supervalores) was analyzed in the July report and several indicators of their ability to pay were shown to have experienced some improvement in 2001. The present report focuses on a larger group of companies including those regulated by Supervalores and by the Corporate Commission (Supersociedades). An analysis of this larger sample confirmed the conclusion that ability to pay had improved during 2001.

✘ The third quarter of 2002 saw a substantial decline in the financial indicators of companies regulated by Supervalores. Although this was a general trend, it was more pronounced among companies producing non-tradables, due to real the devaluation of the exchange rate.

✘ The positive way certain indicators for the tradable sector responded to devaluation before 2001 and the negative response of non-tradable companies to devaluation up to the third quarter of 2002 indicate the financial stability of the corporate sector is extremely sensitive to sharp fluctuations in the exchange rate. This being the case, extreme instability in this variable poses risks for important lines in the productive sector of the economy.

✘ The limited force of internal and external demand, especially at the start of 2002, is reflected in the standstill in business operational income. In this context, an additional slump in demand is the second most important risk to financial stability of the productive sector.

✘ According to different surveys on aggregate growth of the economy, business opinion remains highly conservative. Most of those surveyed have no immediate plans to increase their personnel. In an indirect way, this indicates they have no ambitious investment plans for the near future. The indicators seem to denote the possibility of a moderate increase in demand in the short term similar to the one observed in recent months.

Households

✘ The first six months of 2002 were characterized by a steady decline in the financial system's exposure to the household sector. This trend began in 1998 and has placed household debt exposure at its lowest level since 1996. However, although the decline in the household debt portfolio applied to mortgage banks (BECHS), as well as to commercial finance companies (CFC) and commercial banks, the dynamics of the last two are different and were responsible for reversing their trend as of May 2002.

✘ During the course of 2002 to date, the household portfolio has improved slightly compared with the previous year. This is reflected in an increase in the share of class-A holdings. The improvement coincides with less of a decline in the price of assets and more income for wage earners compared with the year before, suggesting this sector of the population has a better ability

to pay. Nonetheless, because of the trend in employment and unemployment rates, the same cannot be said for the household sector in its entirety.

✕ As to household borrowing in the future, different surveys give mixed signals about the trend in demand for credit. Some indicators show a decline in the number of households that believe this is the time to acquire goods and property. However, the consumer confidence and economic indexes are relatively high compared with last year. The latest information from these surveys (not included herein) ratifies this trend. Consequently, if growth in consumer credit continues and mortgage portfolio placement keeps improving, there could be a moderate increase in household demand for credit.

Non-financial Public Sector

✕ Growth in the financial system's exposure to the public sector in recent years slowed during the first six months of 2002 and became even more moderate in the second half of the year, with the purchase of government bonds by Banco de la República.

✕ In the years prior to 2002, the non-financial public sector (NFPS), particularly the central government, saw its debt increase steadily and its financial indicators decline. As mentioned in the last report, with government bonds accounting for a larger portion of the system's assets, deterioration in the public sector's financial position posed a risk to the financial sector. This risk materialized in July and August when interest rates on these securities rose by nearly 200 basis points (bp), generating losses in the value of paper held by the system

✕ Because this effect was not enough to induce losses in the overall balance of the system, the conclusion is that, with current exposure, intermediaries can absorb a shock of this proportion without having their stability threatened. The months after August saw an improvement in the terms of the debt, which led to profits for the financial system.

✕ However, the public sector's financial position clearly remains an important factor in the solvency of the financial sector. For this reason, the necessary adjustments are a priority if sustainability of the public debt is to be guaranteed.

✕ The July edition of the Financial Stability Report mentioned the importance of the system's exposure to the debt of territorial agencies, not only because of the amount but also because of its poor quality. This exposure has declined in recent months, in real terms, and the quality of the portfolio has improved, thereby reducing the risk these agents pose to the stability of the financial system.

RECENT DEVELOPMENTS IN THE FINANCIAL SYSTEM

✕ The profitability of the financial system improved during the course of the year. The increased profitability of the portfolio business and other commission-earning activities played an important role in this respect.

✕ The quality of the sector's assets has also gotten better. Nevertheless, asset performance remains asymmetric, depending on the type of holding. While there has been a substantial and sustained improvement in the commercial and consumer portfolios, mortgage portfolio performance continues to imply considerable risk.

✕ As a result of this trend, the system's dead assets are concentrated in the mortgage sector (BECH). These banks are the intermediaries with the largest share of mortgage holdings on their balance sheets.

✕ In addition to credit risk, mortgage banks also face considerable risk from interest rates. However, there were two securitization operations during the course of the year, which means mechanisms are being developed to reduce this risk in the mid-term.

✕ A systematic tendency towards portfolio replacement with investments was summarized in the last report and continued until May 2002. However, in recent months, the portion of total assets corresponding to credit has grown considerably, in detriment of the investment share. This tendency increased in the final months of 2002 with sales of government bonds to the Banco de la República by financial institutions.

✕ In spite of portfolio performance in recent months, the financial sector's tendency to assume new risks was reinforced throughout 2002, especially those associated with futures and derivatives, as well as treasury operations.

✕ This underscores the importance of implementing capital requirements and having the capacity to regulate these new activities, which do not necessarily require the movement of resources from one financial institution to another.

RISKS DERIVED FROM THE MACROECONOMIC SITUATION

✕ Four sources of potential risk derived from macroeconomic performance were suggested in the last report; namely, changes in capital flows, the trend in absorption, problems with public financing, and external demand.

✕ Capital flows to emerging countries slowed in 2002 and Colombia was no exception. Macroeconomic projections for 2003 indicate this trend could continue to have a negative impact on interest rates, expectations of devaluation and the exchange rate. The financial system could be affected as a result.

✕ There have been no major changes in the momentum of absorption, which has grown increasingly in recent months. This trend is expected to continue.

✕ The economic situation confronting Colombia's trading partners spells low external demand for domestic goods. This has an impact on companies producing tradables. Through them, lenders in the financial system are affected as well. High devaluation in the second half of 2002 is expected to mean more operational income for these companies in 2003.

✚ As mentioned earlier, the behavior of fiscal variables has considerable bearing on the financial system. Therefore, the stability of the system is linked to what happens on this front.

Board of Directors
Banco de la República

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GROSS DEBT IN THE PRODUCTIVE SECTOR

The productive sector of the economy, which includes the government, companies and households, is the counterpart of the domestic financial system. The latter is one of the primary sources of financing for the productive sector. Consequently, monitoring the extent of debt and income in the productive sector will help assess the financial system's overall exposure to its debtors.

Table 1 shows how the gross debt of the non-financial sector changed between 1998 and June 2002. The total debt, in nominal terms, rose by 54.2% during the period as a whole. This is equivalent to a real increase of 15.1%. Real average annual growth between 1998 and 2001 was 5.3%. However, there was a slight decline of 1.4%, in real terms, between December 2001 and June 2002

The public and private sectors differed substantially in terms of the pattern of their debt. The non-financial private sector (NFPS) debt rose by 63.3%, in real terms, between 1998 and 2000, while the debt of the NFPS saw a real decline of 17.9%. During the first six months of 2002, the public debt experienced a real increase of 0.2%, while the private debt in the private sector continued to decline, falling by 3.6% in real terms. In other words, the public sector is assuming liabilities, while the gross debt in the non-financial private sector has declined steadily, in real terms, since 1998.

Sources of domestic and foreign financing for the public sector are equally important. This is evident in the fact that the internal and external components of the debt in this sector are almost equal in share.

TABLE 1
GROSS DEBT OF THE NON-FINANCIAL SECTOR, 1998-2002
(TRILLIONS OF PESOS)

Year	Non-financial public sector			Non-financial Private			Debt
	Internal	External	Total	Internal 1/	External 2/	Total	total
1998	23.9	24.7	48.7	48.9	22.2	71.2	119.8
1999	30.6	32.9	63.5	46.1	27.3	73.4	136.9
2000	42.1	41.9	84.1	41.9	32.0	73.9	157.9
2001	50.6	50.8	101.4	43.1	34.4	77.5	178.9
2002 3/	55.6	50.9	106.5	43.4	34.9	78.3	184.8

1/ Gross private portfolio - Loans between financial institutions + private bonds on the stock exchange's spot market.

2/ Includes leasing.

3/ Information as of June 2002.

Source: Banking Superintendent. Banco de la República calculations.

Nevertheless, during the first half of 2002, the stock of internal debt in the sector experienced a real increase of 4.8%, while the external debt valued in pesos dropped by 4.4%, in real terms, primarily due to the quantity effect. In other words, the external NFPS debt in US dollars declined by 3.8% in those six months (US\$955 million (m)), while nominal devaluation during the same period was only slightly below inflation (devaluation¹ was 4.7%; inflation measured by the change in the consumer price index (CPI) was 4.8%).

In contrast, for the private sector, the internal debt outweighs the external debt as a source of financing. The first six months of 2002 saw private internal and external debt holdings decline in real terms. The first fell by 3.9% while the second, valued in pesos, declined by 3.2%. The reduction in the private external debt was also due to a decline in the dollar-denominated debt (US\$467 m).

The trend in the debt to Gross Domestic Product (GDP)² ratio of the productive sector between 1998 and June 2002 is shown in Table 2. This is a better

indicator of potential risk to the domestic financial system than merely the trend in aggregate debt, as it shows how the level of debt has evolved in comparison with the debtor's income pattern. In principle, an increase in the overall debt implies more risk for creditors, provided all else remains constant. However, growth in the debt level may be associated with growth in economic activity that generates more future income, which can be used to cover liabilities. On the other hand, accelerated increases in the ratio of debt in the productive sector to gross domestic product (GDP) could imply more direct and indirect risk for the domestic financial system. Direct, insofar as part of the debt is financed through the portfolio with the domestic financial system. Indirect, because when the ratio increases so does the financial fragility of debtors, who might find it difficult to meet their obligations if their solvency or liquidity are affected by possible shocks.

As illustrated, the debt/GDP ratio increased from 85% to 94% between 1998 and 2001, then stabilized at 94% during the first half of 2002. This pattern was common to both the public and private sectors.

A look at the trend in this indicator, according to the geographic origin of the debt as opposed to recipient (public or private sector), shows the internal debt of the productive sector declined

¹ Devaluation is calculated on the basis of the representative market exchange rate (TRM) at the end of the month.

² Whereas GDP is a flow and the debt is a stock, the GDP figure for June 2002 should be analyzed as follows: GDP first half 2002 - GDP first half 2001 + total GDP for 2001.

TABLE 2
GROSS DEBT IN THE NON-FINANCIAL SECTOR , 1998-2002
(AS A PERCENTAGE OF GDP)

Year	Non-financial public sector			Non-financial private sector			Total
	Internal	External	Total	Internal 1/	External 2/	Total	
1998	17.0	17.5	34.5	34.7	15.8	50.5	85.0
1999	20.5	22.1	42.6	31.0	18.3	49.3	91.8
2000	24.8	24.1	49.0	24.1	18.4	42.5	91.5
2001	26.7	26.8	53.5	22.7	18.2	40.9	94.4
2002 3/	28.4	25.9	54.3	22.1	17.8	39.9	94.2

1/ Gross private portfolio - Loans between financial institutions + private bonds on the spot market on the stock exchange.

2/ Includes leasing.

3/ Information as of June 2002.

Source: Banking Superintendent. Banco de la República calculations

between 1998 and June 2002 as a portion of GDP, while the external debt of the productive sector increased as a portion of GDP. In other words, even though the productive sector continues to be financed primarily with domestic credit, its use of external resources has become more important. The internal debt in the productive sector, as a portion of GDP, was 52% in 1998 and 50% in June 2002. The productive sector external debt, as a portion of GDP, grew steadily between 1998 and 2001 (from

33% to 45%). However, it declined slightly to 44% of GDP in June 2002. Another important factor to bear in mind is the high rate of devaluation between July and September 2002, which caused a considerable increase in the external debt valued in pesos. This could mean price outweighs quantity in terms of effect, reversing the trend in the first six months of 2002 towards a reduction in the external debt valued in pesos to just the opposite in the second half of 2002.

DEBTORS IN THE FINANCIAL SECTOR

The present chapter examines the trend in several financial variables of the principal sectors that bid for or demand resources from the financial system. A general understanding of how much of the financial system's portfolio these sectors account for is important this analysis.

Table 3 shows the corporate (public and private) and household portfolios at June 2002. As it is impossible to know exactly what share of the portfolio of financial institutions is extended directly to households and what portion pertains to the corporate sector, two approximations are presented (Criteria 1 and 2). Under the first criteria, the sum of loans to private individuals and credit to legal entities in amounts under 100 times the minimum monthly wage is regarded as the household loan portfolio. The remainder is the corporate portfolio. Under the second criteria, the household portfolio is the sum of mortgage and consumer credit, while

corporate credit is the sum of commercial and microcredit.

As Table 3 illustrates, there are important differences in the composition of credit, depending on the recipient sector. For this reason, the particular criterion used is mentioned explicitly throughout this report.

A. PRIVATE CORPORATE SECTOR

1. Corporate Sector Credit with the Financial System

The approximate amount of credit extended to the corporate sector by the financial system was calculated on the basis of the commercial portfolio of financial institutions and private securities in the hands of the financial sector. The first is the sum of all asset-side lending operations on the balance sheet of financial institutions, including installment sale of assets other than those which should be classified as consumer credit, such as home mortgages or microcredit. Lease agreements are classified as commercial, if the amount rules out the possibility of classification as consumer credit. Although there is no exact definition of the agents to whom this credit is extended, they include part of the corporate sector (public and private) and some general government or national accounts. The sum of private commercial holdings and private securities on the balance sheets of financial institutions is an approximation of credit to the private corporate sector. The information provided in this section, which was furnished by the Banking Superintendent, corresponds to the commercial portfolio of capital extended by the

TABLE 3
CREDIT WITH THE FINANCIAL SYSTEM,
BY TYPE OF DEBTOR

Type	Criterion 1		Criterion 2	
	Trillions of pesos	Percentage	Trillions of pesos	Percentage
Household	27.6	56.0	18.7	37.0
Corporate				
Private	16.5	34.0	25.4	52.0
Public	4.9	10.0	4.9	10.0
Total	49.0	100.0	49.0	100.0

Source: Banking Superintendent. Banco de la República calculations.

financial system. It does not include the asset-side lending operations reported by special official institutions (IOE)³ plus these securities.

Figure 1 shows the recent trend in the ratio of private corporate credit from the financial system to assets of the financial system. After declining between June 1998 and December 2001, this ratio began to increase again during the first six months of 2002, going from 28.5% in December 2001 to 29.6% in June 2002. This change in trend was due to an increase in credit from the financial system to the private sector, which rose by 0.5% in real terms during the first half of 2002 (Figure 2), following a real average annual decline of 9.3% between 1998 and December 2001. The financial system's assets experienced a real decline of 3.4% during the same period⁴.

The slight increase in credit from the financial system to the private corporate sector was primarily the result of growth in the private commercial portfolio, largely due to an increase in the stock of loans to small private debtors⁵. As will be illustrated later, the period between January and June 2002 saw a decline in the concentration of the private commercial portfolio, as evidenced by the fact that it grew more than the private commercial portfolio of the 5,000 leading debtors. This implied a reduction in the large-private-debtor share of the private sector commercial portfolio.

a. Concentration by Type of Creditor⁶

Financial corporations (FC) are the institutions most exposed to the corporate sector debt, as it is they

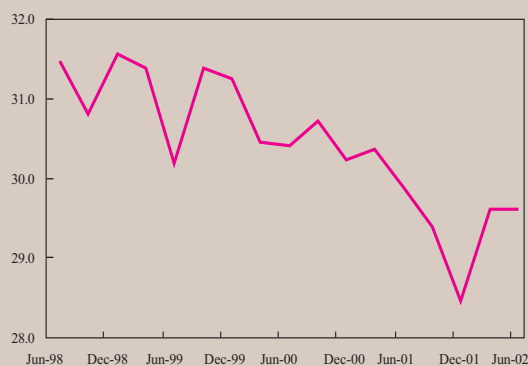
³ The IOE group includes Banco de Comercio Exterior, Finagro, FEN, Findeter, Fogafin and Fonade.

⁴ This rate of decline was due to the particularly high value of assets at December 2001. The rate between June 2001 and June 2002 was only 0.4%.

⁵ The commercial portfolio of small private debtors is defined herein as the portion of the private commercial portfolio that does not correspond to the 5,000 leading debtors.

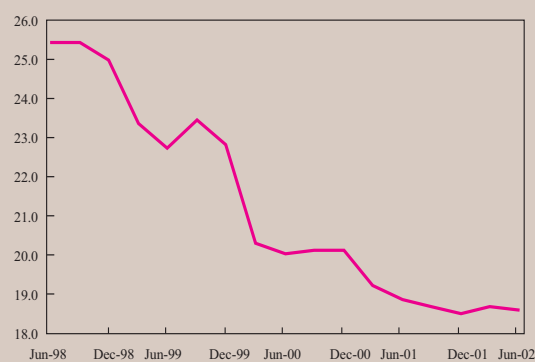
⁶ To conduct this analysis with existing information, the private commercial portfolio cannot be broken down between private and public. However, because the private commercial portfolio accounts for the largest part of the commercial portfolio, the sum of the latter and private securities on the balance sheets of the financial system will be used as an indicator of exposure per type of creditor.

FIGURE 1
CREDIT FROM THE FINANCIAL SYSTEM
TO THE PRIVATE CORPORATE SECTOR/ ASSETS
IN THE FINANCIAL SYSTEM
(PERCENTAGE)



Source: Superintendent of Banking, Technical Delegation

FIGURE 2
CREDIT FROM THE FINANCIAL SYSTEM
TO THE PRIVATE CORPORATE SECTOR
(TRILLIONS OF 1998 PESOS)



Source: Superintendent of Banking, Technical Delegation.

who use the largest portion of their assets for credit to the private corporate sector. As illustrated in Figure 3, this proportion declined between 1996 and 2001 (from 64% to 55%), before rising slightly until June 2002, when it was 56%. The situation was similar for commercial banks. Their exposure declined from 43% to 40% between 1996 and 2001, but then stabilized until June 2002. Although considerably less than that of financial corporations and commercial banks, BECH exposure followed a like pattern, having declined from 16% to 11% between 1996 and 2001, before increasing to 13% in June 2002.

While banks are relatively less exposed to the private corporate sector than FCs, the total commercial



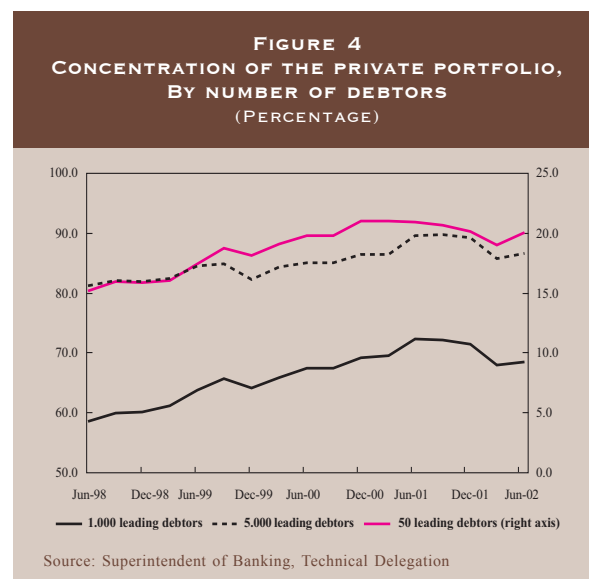
portfolio plus the private securities on bank balance sheets is well above that of the financial corporations. It stood at Col\$21.1 trillion (t) for banks, as opposed to only Col\$4.6 t. for FCs.

Most loans to the private sector are extended by private financial institutions. Their share of credit rose from 76% in 1996 to 88% in 2001 and June 2002. This is a substantial increase.

b. Concentration by Number and Portfolio Quality of the Leading Debtors⁷

The private commercial portfolio increased from Col\$23.3 t in December 2001 to Col\$24.4 t in June 2002. The 5,000 leading debtors contributed Col\$0.4

⁷ This section and the following one examine the trend in the private commercial portfolio of the 5,000 leading private debtors.



t to this nominal increase of Col\$1.1 t, while small private debtors accounted for Col\$0.7 t. The result was less concentration of the private commercial portfolio, as illustrated in Figure 4. The 5,000 leading debtors accounted for 89.3% of the private commercial portfolio in December 2001 and 86.7% in June 2002. The share of the commercial portfolio pertaining to the 1,000 leading debtors went from 71.6% to 68.7% during the same period. Although less so than the leading 1,000 and the leading 5,000 debtors, the leading 50 also lost some of their share, which declined from 20.1% in December 2001 to 20.0% in June 2002. In other words, the private commercial portfolio is not as concentrated as it was, but this diversification has been less pronounced when it comes to the leading debtors in the private sector.

The quality of the portfolio of the leading debtors, which deteriorated steadily between June 1998 and the end of 2000, has improved since then. The class-A portfolio has increased, while the class-E portfolio has declined. The class-A portfolio of the 50 leading debtors rose from 66.1% in December 2001 to 71.2% in June 2002. The class-A portfolio of the 1,000 leading debtors declined from 70.9% to 73.6% during the same period, and that of the 5,000 leading debtors was increased from 71.4% to 74.1% (Figure 5).

The trend is the same as indicated in the last edition of this report: the 1,000 and 5,000 leading debtors

account for a greater share of the class-A portfolio than the 50 leading debtors. In contrast, the leading debtors in the private sector account for less of the class-E portfolio (Figure 6). The 50 leading debtors represented 0.2% of the class-E portfolio in June 2002, while the 1,000 leading debtors accounted for 1.5% as opposed to 2.8% for the 5,000 leading debtors. These levels are well below those observed from mid-1999 to the end of 2000, but not as good as the ones registered in June 1998 (Figure 7).

c. Concentration by Economic Sector⁸

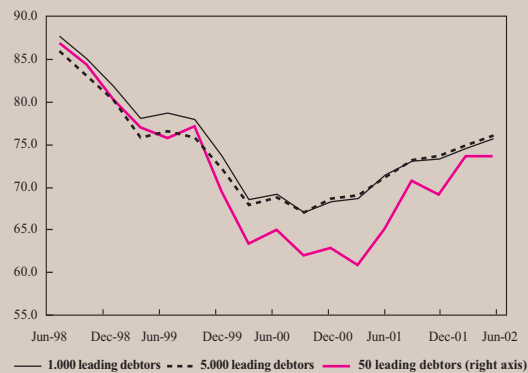
Most of the private commercial portfolio remains concentrated in the industrial manufacturing sector. In June 2002, it accounted for 39.4% of the total private commercial portfolio, which is only slightly below the proportion in December 2001 (40.1%). Other sectors with important shares are commerce (16.3%), financial intermediation (10.8%), transport, storage and communications (7.0%) and construction (5.9%) (Figure 8).

As shown in Figure 9, the share of the private commercial portfolio belonging to the leading sectors has been relatively stable during the last four years. Manufacturing industries are a case in point. Between June 1998 and December 2001, their share rose from 34.1% to 40.1%, before losing some ground, as mentioned earlier. For its part, the commerce sector saw its share increase from 13.7% in 1998 to 16.3% by June 2002. The construction sector's share of the private commercial portfolio declined from 11.9% to 6.1%, between June 1998 and December 2001, and continued to abate during 2002, but only slightly. It was 5.9% in June.

Portfolio quality continued to improve for all sectors, following the trend mentioned in the previous report (Figure 10). It is important to note that construction, which has the worse quality indexes, has recovered steadily in recent months. Its class-A share expanded from 40.8% in September 2000 to 52.0% in June 2002, while the class-E share, which was 16.1% in December,

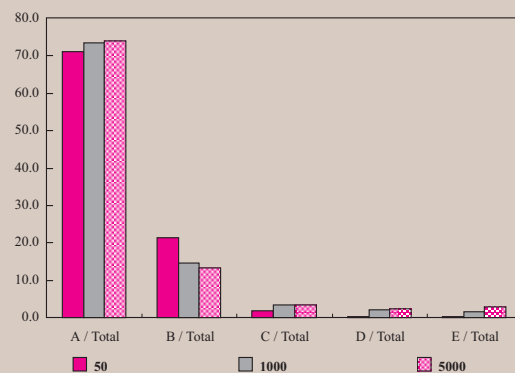
⁸ With respect to this section, because of certain restrictions on information, only the 5,000 leading private debtors are taken into account.

FIGURE 5
TREND IN THE CLASS-A PORTFOLIO,
BY DEBTOR CONCENTRATION
(PERCENTAGE)



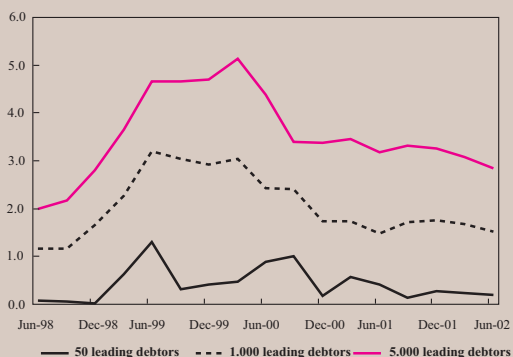
Source: Superintendent of Banking, Technical Delegation

FIGURE 6
QUALITY OF THE PRIVATE COMMERCIAL PORTAFOLIO
BY DEBTOR CONCENTRATION JUNE 2002
(PERCENTAGE)

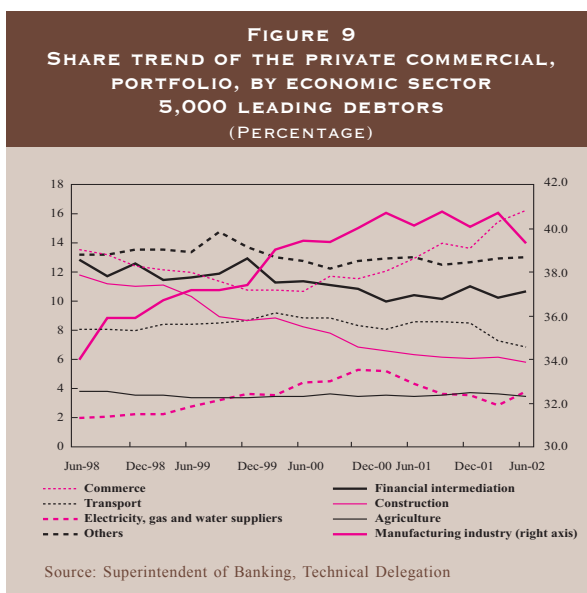
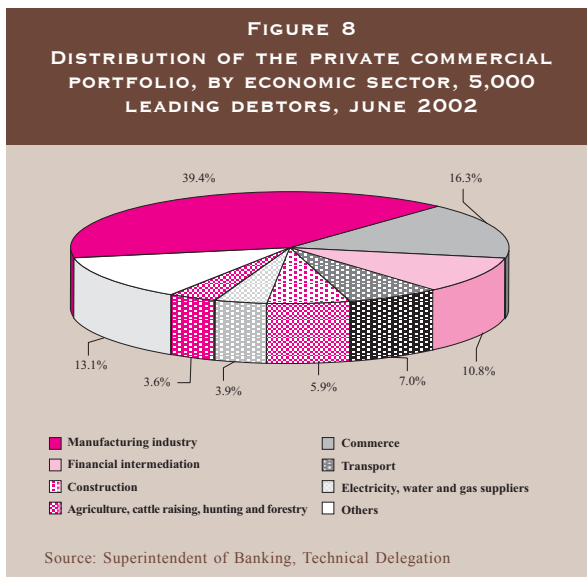


Source: Superintendent of Banking, Technical Delegation

FIGURE 7
TREND IN THE CLASS-E PORTFOLIO,
BY DEBTOR CONCENTRATION
(PERCENTAGE)



Source: Superintendent of Banking, Technical Delegation



had declined to 14.4% by June. In other words, the particular risk posed by the construction portfolio has narrowed in the last six months. This may be due largely to the sector's recent performance, as it is one of the areas of the economy that grew the most in 2002.

The class-A share of the industrial manufacturing portfolio increased from 72.5% in December 2001 to 75.8% in June 2002, while the class-E share remained at 1.5%. In other words, the quality of the portfolio of the economic sector most in debt with the financial system continues to improve. The same is true of the commercial sector. The class-A share represented 87.1% of its portfolio in June 2002; the

class-E portfolio accounted for 1.8% during the same month.

In short, the financial system increased its exposure to the private corporate sector at the start of the year, although only slightly, following a decline between 1998 and 2001. The risk the leading sectors of the economy pose to the financial system continues to decline, since the quality of their portfolio has improved. It is important to note that although construction is still the sector with the poorest rates, the quality of its portfolio has grown steadily. If performance in this sector remains dynamic, the quality of its portfolio will continue to improve and its risk for the domestic financial system will be reduced as a result.

2. Company Performance

The deterioration reflected in company financial statements increases the likelihood of the financial

system not being paid. With high profitability and low levels of borrowing, companies will be less likely to default on loans. If confronted with unexpected shocks that can reduce a company's ability to pay, a high degree of liquidity will remove lenders from this situation. To identify the possible risks posed to the financial system by companies in the productive sector, this section examines the development and financial health of private companies according to indicators of profitability, indebtedness and liquidity.

The information used for this analysis comes from the balance sheets of companies regulated by the Securities Commission (Supervalores) and the Corporate Commission (Supersociedades). The balance sheets provided by Supersociedades contain a broad sample of business enterprises (9,470 companies on average between 1995 and 2000). They are presented yearly and cover the period from 1995 to 2001⁹. Those provided by Supervalores are quarterly and involve fewer companies, mostly large (145 on average between March 1998 and September 2000).

The wide-ranging sample from Supersociedades is supplemented with figures presented in December by the companies regulated by Supervalores. This made it possible to examine all the companies that submitted their financial statements to both authorities between 1995 and 2001. This sample established a classification by sector, between producers of tradable and non-tradable goods¹⁰. In December 2001, 60% of the 6,112 companies reporting to these authorities were classified as producers of non-tradables. The rest were in the tradable category.

⁹ Although the sample for the 1995-2000 period is not uniform, the information does come from companies that are monitored and regulated, including many that have been inspected. In 2001, Supersociedades limited itself to requesting information from monitored and regulated companies (in addition to those that have reached an agreement with creditors to avoid bankruptcy or are in a restructuring agreement pursuant to Law 550 of 1999). This reduced the sample considerably (4,155 fewer companies than in 2000). The present sample contains a lesser number of companies, the most notable being Carbocol de Colombia and Metro de Medellín. In 2001, the sample included 30 government companies, which account for a very small share of sales and assets for the sample as a whole (less than 0.002%).

a. Profitability Indicators

Return on equity and the operational profit margin were calculated to assess business profitability. Return on equity was defined as the relationship between profit before taxes¹¹ and equity. It shows how profitable the business is. The operational profit margin was constructed as the ratio of operational profits to operational income. It attempts to determine what proportion of sales income remains once sales costs and operational costs have been deducted (without including non-operational costs or taxes).

Return on equity has improved steadily since 1999 and was 2.5% in December 2001. This recovery was evident in the huge profitability for companies producing tradable goods (from 0% in 1998 to 8% in 2001), and in better return on equity reported by companies in the non-tradable sector. Although their return on equity was -3% in December 2001, they are on a sustained course towards positive figures in this respect (Figure 11).

This difference among sectors, as illustrated by the profitability indicators, is closely related to the macroeconomic adjustments made in the economy in recent years (Figure 12). Specifically, the slump in absorption has had considerable impact on the sales growth rate for companies producing non-tradable goods (their average annual sales growth dropped from 21% in 1995-1998 to 7% in 1999 - 2001).

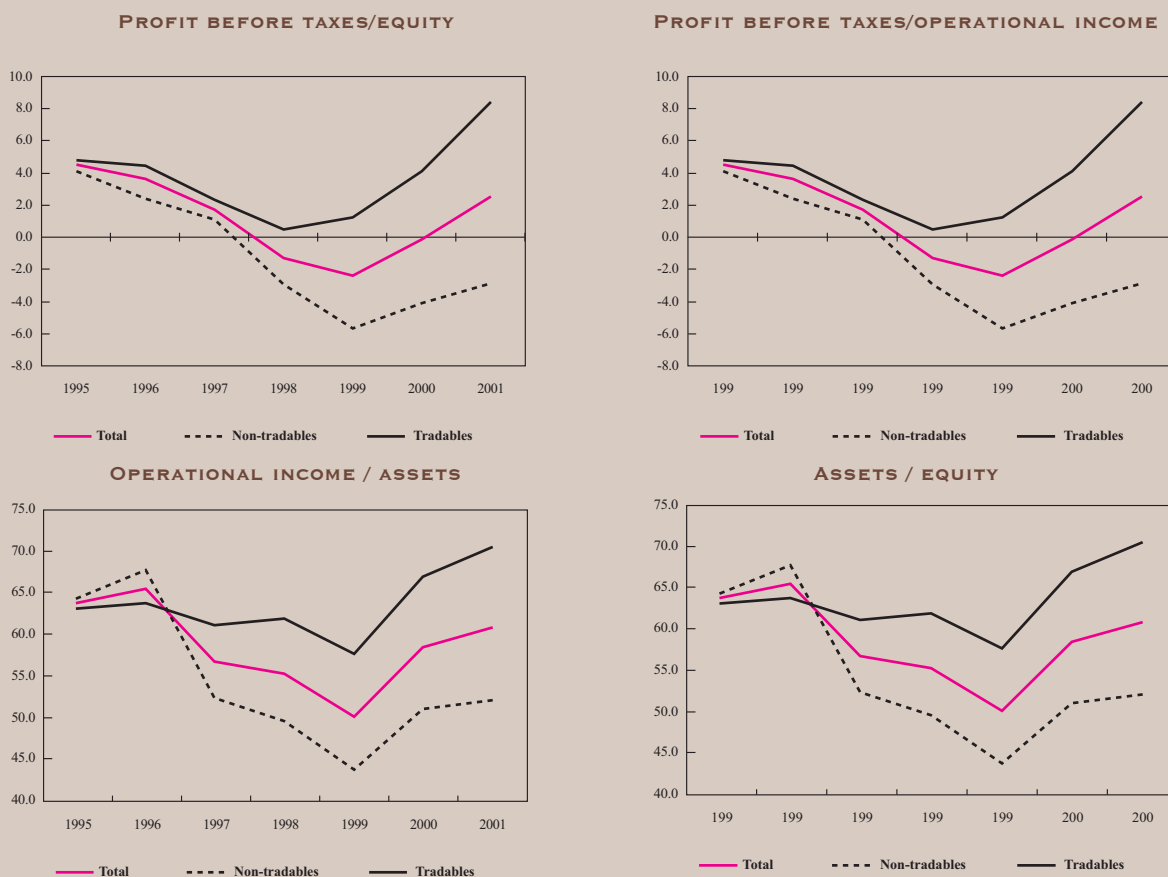
On the other hand, fluctuations in the exchange rate or indexation, plus the reduction in the current account deficit during the same period, did much to favor growth in sales (exports) for most producers of tradable goods (Figure 13).

This indicator can be broken down into three financial ratios that explain the increase in business profitability

¹⁰ Companies involved in agriculture, cattle raising, hunting and forestry, fishing, mining, quarries and industrial manufacturing were classified as producers of tradable goods.

¹¹ For the purpose of this report, profit before taxes is understood as operational profit plus non-operational income, minus non-operational outlays. Accordingly, it does not include taxes or adjustments for inflation.

FIGURE 11
COMPOSITION OF BUSINESS RETURN ON EQUITY
(PERCENTAGE)



Source: Supersociedades and Supervalores. Banco de la República calculations.

as of 1999: namely, profit margin, income on assets and the leverage ratio.

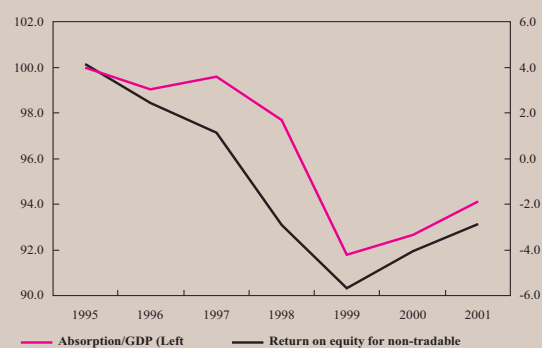
$$\frac{\text{Profit before taxes}}{\text{Equity}} = \frac{\text{Profit before taxes}}{\text{Operational income}} \times \frac{\text{Operational income}}{\text{Assets}} = \frac{\text{Assets}}{\text{Equity}}$$

As Figure 11 illustrates, these three components have helped to improve business profitability since 1999. There has been a moderate increase in leverage for companies as a whole (6% between 1996 and 2001), with a slight decline during the past year¹².

¹² This indicator is related to the debt-equity ratio analyzed later, where:

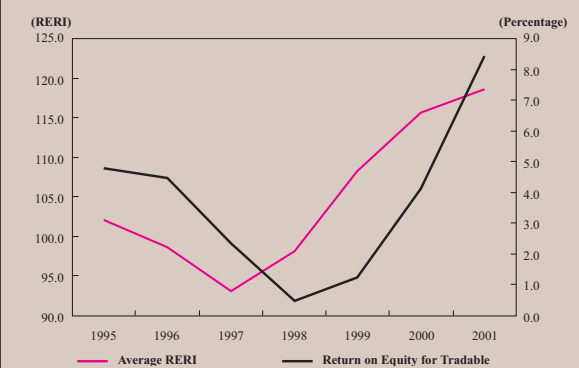
$$\text{Leveraging ratio} = \frac{\text{Assets}}{\text{Equity}} = \frac{\text{Liabilities}}{\text{Equity}} + 1$$

FIGURE 12
RETURN ON EQUITY FOR NON-TRADABLE PRODUCERS AND THE ABSORPTION/GDP RATIO
(PERCENTAGE)



Source: Supersociedades and Supervalores. Banco de la República

FIGURE 13
AVERAGE REAL EXCHANGE RATE INDEX (RERI) AND
RETURN ON EQUITY FOR TRADABLE PRODUCERS
1995-2001



Source: Supersociedades and Supervalores. Banco de la República calculations.

Leverage increased between 1996 and 2000, mainly because of the situation for companies producing tradable goods. The drop in leverage in 2001 was attributed to non-tradable companies, due to a real reduction in assets (7%), liabilities (11%) and equity (4%)¹³.

Unlike the leverage ratio, income on assets clearly reflects increased profitability on assets in both sectors as of 1999. However, in spite of this general trend, there are important differences between sectors. These differences have grown since 1999. In that year, every Col\$100 invested in assets of non-tradable companies brought only Col\$42 in operational income, as opposed to Col\$58 in businesses producing tradable goods. In 2001, the figures were Col\$52 and Col\$71, respectively.

The profit margin shows a similar trend as the one seen for return on equity. A look at changes in profitability during 2001, based on income statements (Table 4), shows a major reduction (Col\$5.6 t) in non-operational outlays due to a less share for this item as part of operational income (18% in 2000 and 13% in 2001)¹⁴. Essentially, this was what companies

¹³ The real reduction in assets, as well as in liabilities and equity, has been a feature in both sectors since 2000.

changed to recover their financial profits. It has also been a determining factor in the difference between sectors with respect to profitability before taxes, considering that non-operational expenses have been much higher in recent years for non-tradable companies than for producers of tradable goods.

In spite of a major effort in both sectors to reduce administrative costs, operational profits were affected by an increase in sales costs, as reflected in the operational profit margin¹⁵.

As with return on equity, the operational profit margin in 2001 was similar to what it was in 1997 (5%) and profitability for producers of tradable goods was clearly superior to that of companies producing non-tradables. This difference has increased since 1997 (Figure 14). However, unlike the return on equity and profit margin analyzed earlier, the operating margin exhibited a decline in operational return during the past year, primarily because of an increase in sales costs. These lowered the gross margin (gross profit/operational income) from 30% to 28%. This increase in the level and share of sales costs in operational income occurred in both sectors, where approximately 70% of operational income is used to cover this item.

The difference in profitability between producers of tradable and non-tradable goods originates mainly with high administrative costs. After covering their operating costs, companies in the non-tradable sector obtained only a negligible profit (0.4%) from the Col\$57.4 t in sales they reported for 2001. However, companies in the tradable sector saw Col\$6 t in profits (9%) from Col\$70 t in sales. If the non-operational activities of companies in the non-tradable sector are included in the equation, the almost non-existent operational profit becomes a loss before taxes.

¹⁴ The drop in non-operational outlays was due essentially to the decline in financial outlays mentioned later with respect to the interest burden indicator. In 2001, financial outlays accounted for 71% of non-operational outlays.

¹⁵ Defined as the ratio of operational profit to operational income.

TABLE 4
STRUCTURE OF THE INCOME STATEMENT
(PERCENTAGE)

	Total				Non-tradable				Tradable			
	Trillions of pesos		% of operational income		Trillions of pesos		% of operational income		Trillions of pesos		% of operational income	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
A. Gross Profit (1-2)	37.0	36.5	30.5	28.4	16.9	16.1	30.2	28.1	20.1	20.1	30.7	28.7
1. Operational income	121.6	128.6	100.0	100.0	56.0	57.4	100.0	100.0	65.3	70.0	100.0	100.0
2. Sales costs	84.6	92.0	69.5	71.6	39.1	41.3	69.8	71.9	45.2	49.9	69.3	71.3
B. Operational Profit (A-3-4)	6.9	6.3	5.7	4.9	1.0	0.3	1.7	0.4	6.0	6.0	9.2	8.6
3. Administrative expenses	15.9	14.7	13.1	11.5	9.4	8.6	16.8	14.9	6.5	6.0	9.9	8.6
4. Sales expenses	14.2	15.5	11.7	12.0	6.6	7.3	11.7	12.7	7.6	8.1	11.6	11.5
C. Profit before Taxes (B + 5 - 6)	(0.1)	3.1	(0.1)	2.4	(2.5)	(1.8)	(4.5)	(3.2)	2.4	5.0	3.7	7.1
5. Non-operational income	11.2	9.6	9.2	7.5	5.5	5.1	9.9	8.9	5.7	4.4	8.7	6.4
6. Non-operational outlays	18.3	12.8	15.1	9.9	9.0	7.2	16.1	12.5	9.3	5.5	14.2	7.9
D. End profit (C + Inflation adjustments - taxes)	(1.7)	1.2	(1.4)	1.0	(2.4)	(1.9)	(4.3)	(3.4)	0.7	3.2	1.1	4.6

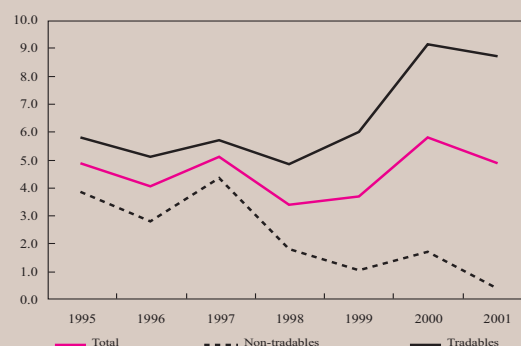
Source: Supersociedades and Supervalores. Banco de la República calculations.

b. Liquidity Indicators

Companies can deal with liquidity risk temporarily by maintaining a higher volume of cash and easily marketable assets as a portion of short-term liabilities. This shock absorber, which reflects a company's liquidity, was measured according to the cash ratio (available cash/current liabilities) and the current ratio (current assets/current liabilities). The cash ratio is a better indication of the extent of a company's immediate liquidity, while the current ratio includes changes in efficiency derived from inventory management, temporary investments and short-term debtors.

Both the cash ratio and the current ratio point to an increase in business liquidity (Figure 15). In the case of the cash ratio, 2001 saw the highest level of immediate liquidity since 1995. Consequently, with more financial pressure and less profitability as of 1999, the increase in availability of immediate liquidity was concentrated in companies producing non-tradables (particularly from 1999 to 2000). Those in the tradable sector have remained constant at the 8% level.

FIGURE 14
OPERATIONAL PROFIT/OPERATIONAL INCOME



Source: Supersociedades and Supervalores. Banco de la República calculations.

As for the current ratio, short-term assets have increased since 1999 in relation to short-term liabilities for companies as a whole. However, unlike the indicator of more immediate liquidity, the current ratio has been higher since 1999 for companies in the tradable sector. This difference, which is becoming more and more pronounced, is explained by the less relative importance of current assets as a component

of assets in the non-tradable sector (current assets as a share of total assets declined by 10% between 1995 and 2001). As shown in Table 5, the recomposition of current assets in the non-tradable sector was determined by the decline in inventory and debtors as a share of total assets.

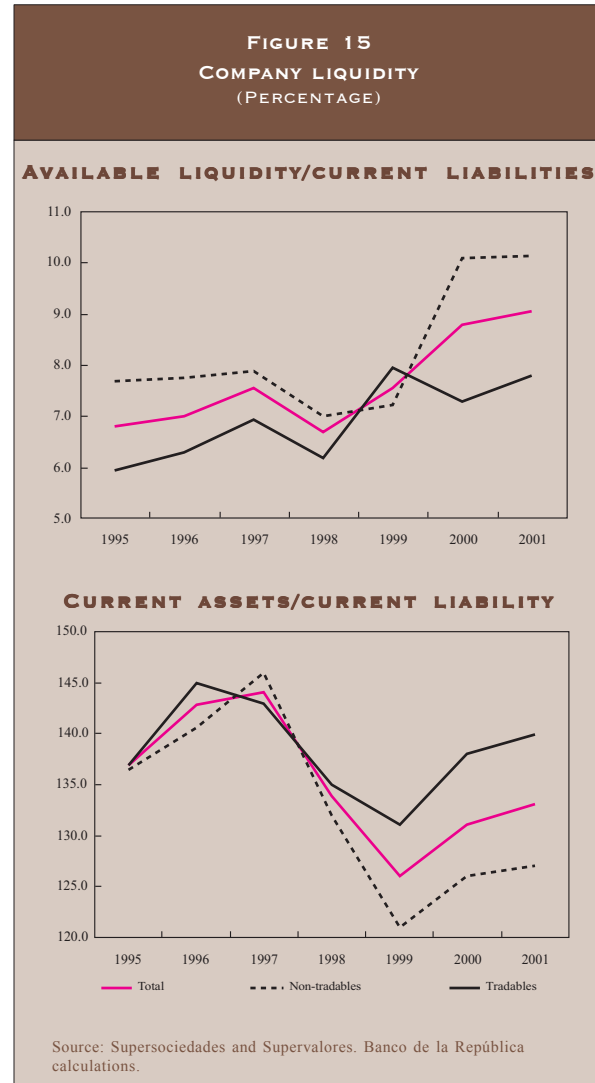
c. Indebtedness Indicators

The debt-equity ratio was used to measure the extent of borrowing and is based on the ratio of financial liabilities to equity. It does not capture the effect of the cash flows that are needed to pay interest and can provoke financial pressure because of the increased perceived risk of debt default. To detect these effects, the interest burden was calculated as the ratio of financial outlays to the sum of operational and financial income. It is important to analyze both these indicators to determine if the financial pressure confronting companies originates with high interest rates, low temporary profitability or a large stock of debt (in which case, accessing the financial system to refinance the amount owed will be more difficult).

The debt-equity ratio of companies¹⁶ has grown since 1997 and was 32% in 2001 (Figure 16). Since 1997, companies in the non-tradable sector have had a higher debt-equity ratio than those producing tradable goods. However, this difference is narrowing due to an accelerated increase in borrowing by the tradable sectors as opposed to a slight decline in the non-tradable sectors. The tradable sectors showed a debt-equity ratio of 31% in December 2001, which is similar to that of the non-tradable sectors (34%).

A look at the components of this coefficient shows low growth in financial liabilities and equity as of 1999. This being the case, indebtedness and equity declined in real terms between 1999 and 2001 (-5% and -4%, respectively), thanks to the adjustments companies have made in response to the crisis. The decline in this indicator by sectors during 2001 was associated with a real reduction in equity (4% for

¹⁶ Measured as the ratio of financial liabilities to equity.



non-tradables and 6% for tradables) and in the debt-equity ratio (9% and 2% respectively).

Financial obligations as a share of liabilities rose slightly between 1995 and 2001 to levels near 45% (Table 6). Less relevant sources of financing, such as suppliers and payable accounts, also showed no significant variation.

Although funding sources did not change in proportion, there was a shift in composition towards long-term liabilities. The tendency was to exchange short-term liabilities for long-term liabilities, especially in the non-tradable sectors. Non-tradable companies were more prone to reassigning liabilities between 1995 and 2001, when long-term liabilities as a share of total liabilities increased by 11%, versus 2% in the

TABLE 5
COMPOSITION OF CURRENT ASSETS
(PERCENTAGE OF TOTAL ASSETS)

	Total					Non-tradable					Tradable				
	1995	1997	1999	2000	2001	1995	1997	1999	2000	2001	1995	1997	1999	2000	2001
Current Assets	34,4	32,6	29,4	31,3	30,0	37,2	35,2	28,3	28,7	26,8	32,0	30,0	30,6	34,1	33,3
Available funds	1,7	1,7	1,8	2,1	2,0	2,1	1,9	1,7	2,3	2,1	1,4	1,5	1,9	1,8	1,9
Investments	3,4	4,1	3,5	3,5	3,6	4,7	5,5	4,5	4,2	4,1	2,4	2,7	2,2	2,8	3,1
Debtors	17,2	15,9	15,1	16,4	15,4	17,4	16,4	13,6	14,3	13,3	16,9	15,4	16,8	18,8	17,5
Inventory	11,6	9,7	8,2	8,4	8,3	12,5	9,6	7,4	7,1	6,6	10,9	9,8	9,0	9,9	10,2
Deferred	0,5	1,2	0,9	0,8	0,7	0,5	1,7	1,1	0,9	0,6	0,5	0,7	0,7	0,8	0,7

Fuente: Superintendencia de Sociedades y Superintendencia de Valores, cálculos del Banco de la República.

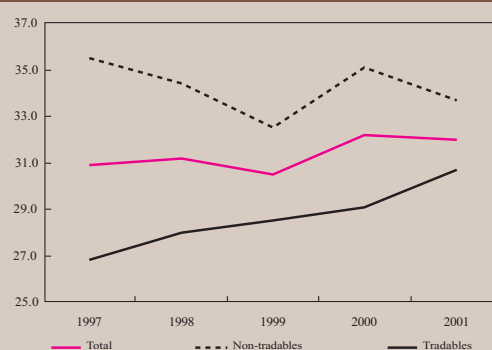
tradable sectors. At present, half the liabilities of companies producing non-tradable goods are long-term; this portion is 42% for companies producing tradable goods and has reduced the risk of a roll over in their debt.

Between 1995 and 2001, the extent of financial liabilities for the sample used in this analysis rose from Col\$17 t to Col\$40 t (Figure 17). In 2001, nearly 55% of all financial liabilities pertained to producers of non-tradables. This represents a balance of Col\$21 t. According to the line of business¹⁷, total financial liabilities were concentrated in industry and transportation, storage and communications¹⁸ (36% and 27% in 2001, respectively). The first has reduced its share since 1995, while the second was marked by a rapid increased in debt as of 1997, primarily due to the developments in communications. However, the concentration of borrowing in these two lines of business is no cause for concern, given their sales in

¹⁷ "Other activities" include agriculture, cattle raising, hunting, forestry, fishing, mining, electricity, water and gas delivery, hotels and restaurants, real estate and leasing, teaching, health and other endeavors.

¹⁸ Despite the increase in the share of total debt pertaining to communications and financial intermediation (both are non-tradable sectors), the proportion by sector has varied little. This is partially because of the drop in other non-tradable sectors, such as commerce and construction. The latter has shown no positive real growth in sales since 1996.

FIGURE 16
FINANCIAL LIABILITIES/EQUITY



Source: Supersociedades and Supervalores. Banco de la República calculations.

2001. Real growth in sales was -2% for total companies, -1% for industry and 5% for transport, storage and communications (a rather high rate in a sector that is recovering from the poor income and indicators during 1999 - 2000).

Commercial and foreign banks were the biggest lenders of the corporate sector during 2001 (35% and 32% of financial liabilities, respectively)¹⁹ (Figure 18). Between 2000 and 2001, exposure of the domestic financial

¹⁹ An important factor is the increase in financing through government bonds, due to the Metro de Medellín debt to the nation. This debt aside (Col\$1.43 trillion in 2001), government bonds as a share of financial liabilities increased from only 5% to 7% between 1999 and 2001.

TABLE 6
STRUCTURE OF LIABILITIES
(PERCENTAGE OF TOTAL LIABILITIES)

	Total					Non-tradable					Tradable				
	1995	1997	1999	2000	2001	1995	1997	1999	2000	2001	1995	1997	1999	2000	2001
By Items															
Financial liabilities	43.1	45.7	44.7	43.8	45.0	44.0	46.1	44.1	44.9	45.7	42.3	45.3	45.5	42.7	44.3
Suppliers Payable	14.5	12.6	13.5	15.3	14.9	14.5	12.1	12.0	13.7	13.4	14.3	13.2	15.5	17.1	16.4
Accounts Other Liabilities	18.7	16.6	19.4	18.2	16.5	18.2	16.4	20.8	18.9	16.1	19.2	16.9	17.6	17.3	16.6
Liabilities	23.7	25.1	22.4	22.6	23.6	23.3	25.4	23.0	22.5	24.7	24.2	24.6	2.5	22.8	22.6
By Terms															
Current Liabilities	60.6	56.0	57.6	56.0	54.0	61.1	55.5	55.2	52.0	49.8	59.9	56.5	60.7	60.8	58.4
Non-current Liabilities	39.4	44.0	42.4	44.0	46.0	38.9	44.5	44.8	48.0	50.2	40.1	43.5	39.3	39.2	41.6

Source: Supersociedades and Supervalores. Banco de la República calculations.

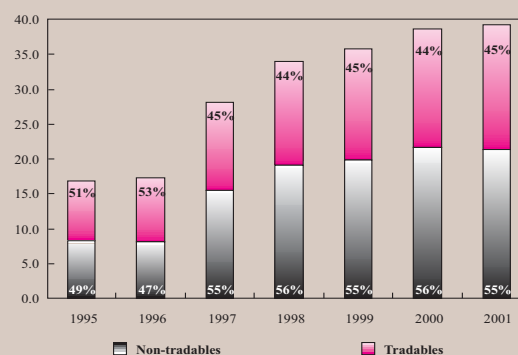
system declined by 5% (equivalent to Col\$0.9 t) and was Col\$17.4 t in 2001 (national banks Col\$13.6 t, financial corporations Col\$2.6 t, commercial finance companies Col\$0.7 t, and mortgage banks Col\$0.4 t). Out of the Col\$17.4 t in exposure through credit, tradable companies account for Col\$10 t (4% less than in 2000), while the non-tradables accounted for Col\$7.3 t (7% less than in 2000). On the other hand, credit extended by the domestic financial system represents a larger share of financial liabilities in tradable sectors than in non-tradable sectors (56% and 35% in 2001, respectively).

Financial liabilities in foreign currency have accounted for nearly 38% of total financial liabilities since 1999. Companies producing non-tradable goods show higher debt-equity ratios in foreign currency (49% of their total debt). This means they are more exposed to changes in the exchange rate. For their part, companies producing tradable goods have a moderate amount of debt in foreign currency (27% of their total borrowing). In December 2001, the foreign-currency debt of the non-tradable sector stood at Col\$10.4 t as opposed to Col\$4.7 t for the tradable sector²⁰.

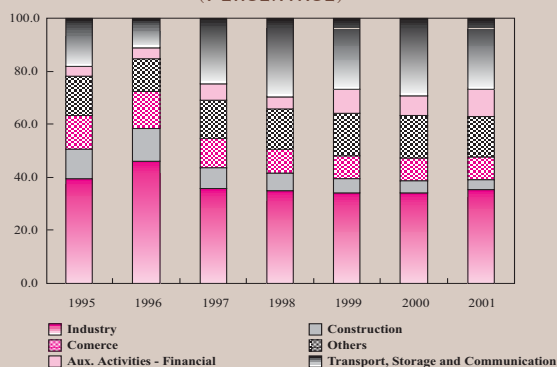
²⁰ US\$4.552 m and US\$2.052 m, respectively.

FIGURE 17
STRUCTURE OF FINANCIAL LIABILITIES

BY LINE OF BUSINESS
(TRILLIONS OF PESOS)



BY SECTOR
(PERCENTAGE)



Source: Supersociedades and Supervalores. Banco de la República calculations.

Financial pressure²¹ has eased since 1999 for all companies. This essentially responds to the sharp downturn in financial outlays prompted by lower interest rates. After 13% in 1999, the interest burden in 2001 was similar to the one in 1995 and 1996 (7%) (Figure 19). The trend in the interest burden is opposite to the trend in return on equity. This reflects the tremendous sensitivity that exists between a company's financial outlays and its degree of profitability.

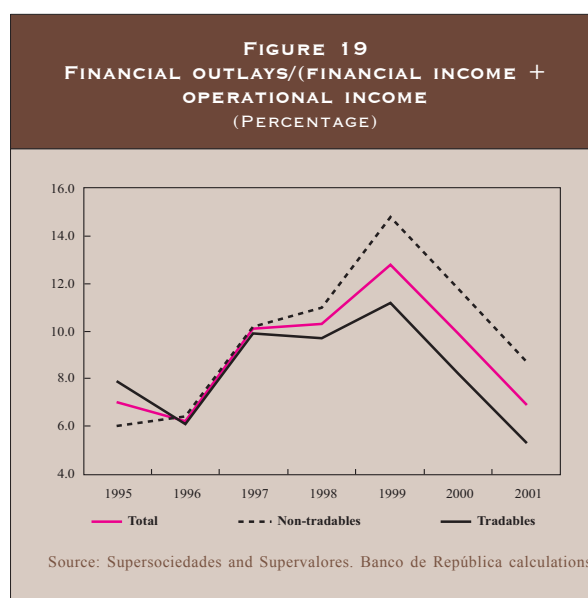
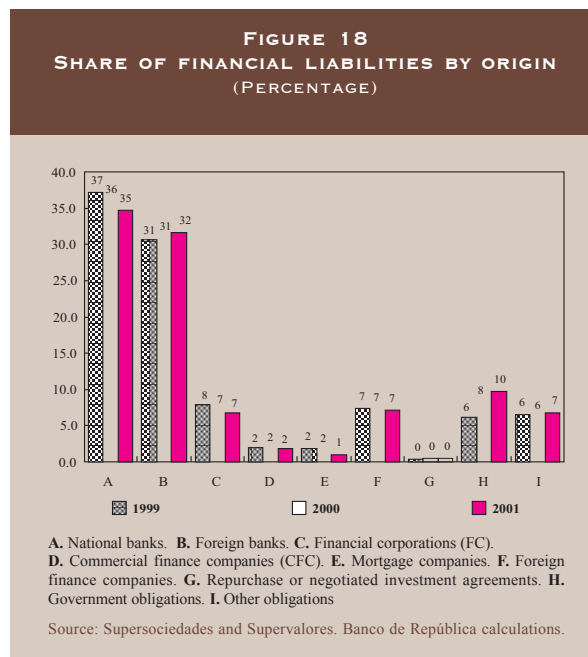
In spite of displaying the same positive pattern registered by companies as a whole in recent years, producers of non-tradables have been obliged to contend with more of an interest burden than companies producing tradable goods (non-tradable companies had a 9% burden in 2001, versus 5% for tradables). This is consistent with less profitability and more borrowing in the non-tradable sector. The favorable trends in financial pressure, liquidity and return on equity exhibited by the non-tradable sector in recent years are symptoms of the recovery that began in 1999. However, until 2001, non-tradable companies continued to have less favorable indicators and more exposure to risk from interest and exchange rates than tradable companies.

d. Business Performance up to September 2002

Profitability, liquidity and indebtedness indicators for a limited group of companies that submit their financial statements to Supervalores on a quarterly basis were analyzed to determine how companies have evolved in 2002. For September 2002, the sample included a group of 131 companies: 79 tradables and 49 non-tradables. This is a sub-sample of the group of companies analyzed earlier, between 1995 and 2001, which is comprised mostly of large businesses²².

²¹ Measured with the indicator of interest burden calculated as the ratio of financial outlays to the sum of operational and financial income.

²² The average assets of the 136 companies that reported information to Supervalores in December 2001 was approximately 12 times what they were for the 6,034 companies reporting to Supersociedades on the same date.



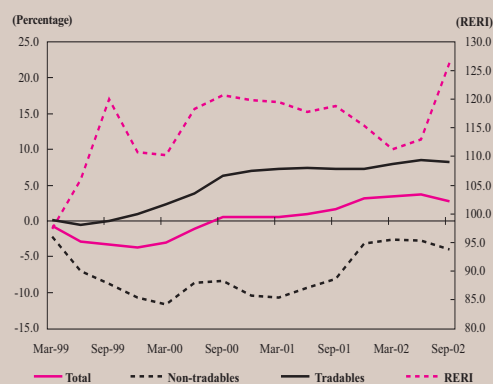
Return on equity for the companies in the Supervalores sample was stable until June, when it began to decline. The profitability ratio for the entire sample presented in September (2.7%) was less than in December 2001 (3.1%). This decline in profitability during the last quarter affected both sectors, but was more pronounced for companies producing non-tradables. In September, their profitability level was -4.1%, versus 8.2% for companies in the tradable sector.

TABLE 7
COMPOSITION OF THE INCOME STATEMENT
(PERCENTAGE)

	Trillions of pesos			% of operational income		
	Dec-01	Jun-02	Sept-02	Dec-01	Jun-02	Sept-02
A. Gross Profit (1 - 2)	6.4	7.2	7.7	30.2	30.7	32.0
1. Operational income	21.2	23.6	24.2	100.0	100.0	100.0
2. Sales costs	14.8	16.3	16.4	69.9	69.3	68.0
B. Operational Profit (A - 3 - 4)	1.4	1.8	2.2	6.8	7.5	9.1
3. Administrative expenses	2.3	2.4	2.5	10.8	10.3	10.5
4. Sales expenses	2.7	3.0	3.0	12.6	12.9	12.4
C. Profit before Taxes (B + 5 - 6)	0.9	1.1	0.9	4.4	4.7	3.5
5. Non-operational financial income	1.8	2.0	5.1	8.6	8.7	21.0
6. Non-operational financial outlays	0.6	0.8	3.9	2.7	3.3	16.3
	2.3	2.7	6.4	10.9	11.5	26.6
	1.6	1.9	5.5	7.5	7.9	22.7
D. End profit (C+ Inflation adjustments - taxes)	0.8	1.0	0.7	4.0	4.1	3.0

Source: Supervalores. Banco de la República calculations.

FIGURE 20
PROFIT BEFORE TAXES/EQUITY AND RERI



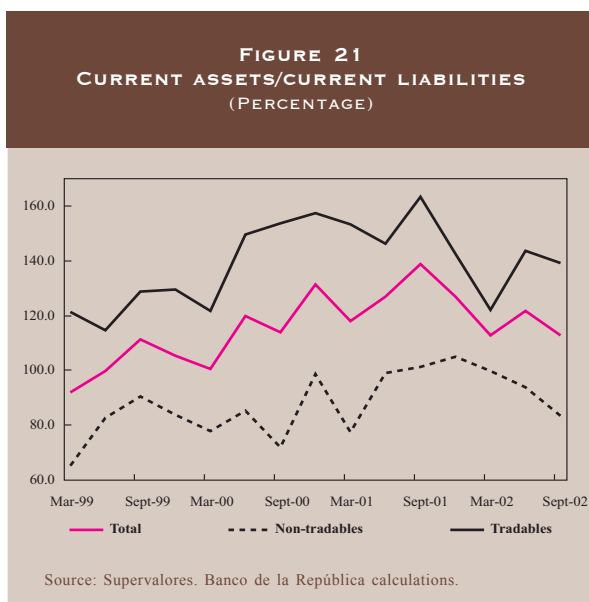
Source: Supervalores. Banco de la República calculations.

According to an analysis of income statements, the loss in profitability originated with a sharp increase in non-operational income and outlays, specifically financial ones (Table 7). A breakdown of these items shows that the third-quarter devaluation of the exchange rate in 2002 was responsible for the abrupt change in level (Figure 20). Even though both sectors

were affected by the variation in the exchange rate, companies producing non-tradables saw their financial income and outlays increase the most, because they were more exposed in terms of financial liabilities as well as investments.

The liquidity indicators for the entire Supervalores sample have dropped since December 2001 (Figure 21)²³. The indicator for companies producing tradables remained stable throughout the last quarter and continued well above that of companies producing non-tradables. The decline in liquidity among companies producing non-tradables influenced the outcome for companies as a whole and added to their already high degree of vulnerability to unexpected shocks (as occurred with the exchange rate) at a time of declining profitability and increased borrowing by the sector.

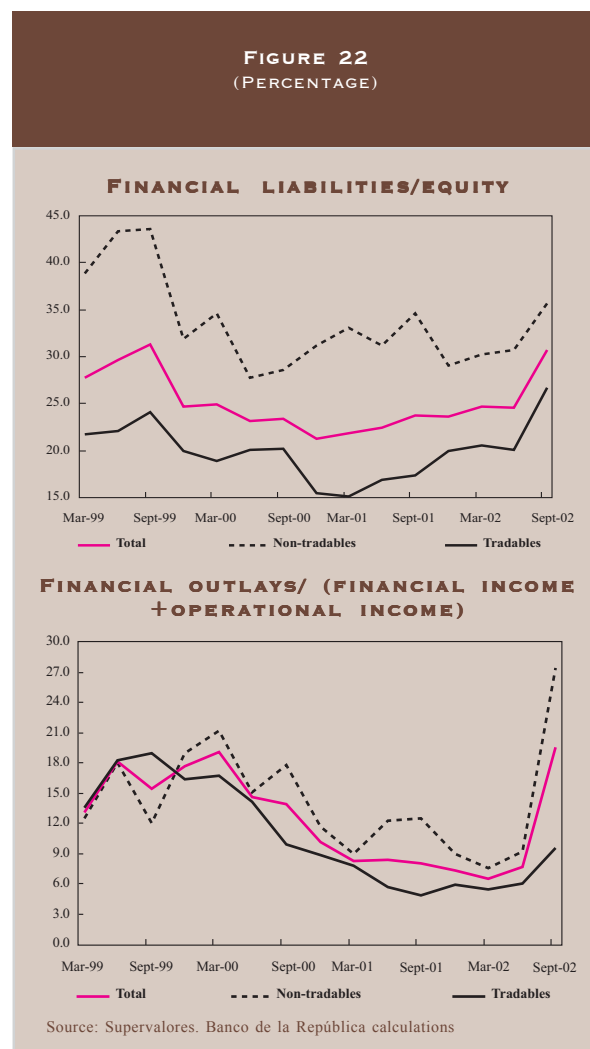
²³ In addition to the current ratio, which is analyzed in this report, the decline in liquidity since December 2001 was evident in the following ratios: available liquidity/current liabilities, (current assets - inventories) / current liabilities, (current assets - current liabilities) / short-term financial liabilities, available liquidity/assets, and (current assets - current liabilities) / assets.



The indebtedness level of the companies that report to Supervalores has risen since December 2001. In September 2002, it was similar to the indicator in December 1999 (31%) (Figure 22). This increase was especially pronounced in both sectors during the third quarter of 2002, due to the increase in the value of financial liabilities denominated in foreign currency. Companies producing non-tradables had an indebtedness level of 36% in September 2002; the indicator for tradable companies was 27% on the same date. Another important aspect is the growing trend in both sectors to reduce the terms of their financial liabilities as of December 2001 (particularly among the producers of non-tradables). Besides lowering the liquidity indicator (as mentioned earlier), this also raises the roll over risk of the debt.

The increase in the value of financial liabilities between December 2001 and September 2002 was due, almost entirely, to an increase in the value of the balance of loans in foreign currency extended by foreign banks and financial institutions. Most of this credit was for companies producing non-tradables. Their debt in foreign currency went from Col\$3.2 t at December to Col\$5.3 t at September 2002.

A look at the indicator of financial pressure shows a major change during the last quarter, placing it at 30% in September 2002 (which is slightly higher than at the end of 1999 and the start of 2000). As explained



earlier, financial outlays became extremely vulnerable to devaluation of the exchange rate during the third quarter of 2002, especially for producers of non-tradables.

Consequently, the increase in the exchange rate during the last quarter showed how extremely vulnerable non-tradable companies have become since 1999. As noted in the last edition of the Financial Stability Report, the companies in this sector have yet to show a return that would portray them as sound. They still have a higher level of indebtedness (particularly the debt denominated in foreign currency) and higher financial pressure than companies in the tradable sector.

3. Business Expectations

Contrary to what was expected in the first quarter of 2002, the economy grew at an annual rate of 2.2%

compared with the second quarter of 2001. This reflects an improvement in economic activity, which saw timid annual growth rate of 0.5% in the first quarter compared with the same period the year before. A number of analysts had predicted less economic growth during the first half of the year, due to reigning uncertainty, sluggish demand, insecurity, the turbulent situation of the international economy and persistently high rates of unemployment. Given those expectations, the aggregate growth figure was a pleasant surprise.

However, a breakdown of the figures shows that the positive aggregate performance was essentially due to good performance by only a few sectors. These include neither industry nor commerce. Construction was the sector registering the largest increase, with 8.8% annual growth during the second quarter of the year. Agriculture and livestock grew at an annual rate of 5.3% during the same period, while financial services saw a 4.8% increase in activity. Following an annual decline of 3.7% in the first quarter, compared to the same period in 2001, the industrial sector registered 1.0% annual growth in the second quarter. For its part, commerce grew at an annual rate of 1.1% in the first quarter of the year and only 0.4% in the second.

Official figures on aggregate growth point to a more dynamic economy during the second quarter than in the first. This is supported by figures from the Banking Superintendent, which show that the private commercial portfolio increased during the second quarter.

Preliminary data on economic activity during the third quarter of 2002 shows a continuation of this trend. According to the Fedesarrollo²² business opinion poll for October, the industrial sector experienced general improvement, as evidenced by less stock on hand, more orders and better expectations for production in the next three and six months (Figures 23 and 24).

Although business expectations for production reflect a highly volatile pattern, the tendency in recent months has been for the better (Figure 24).

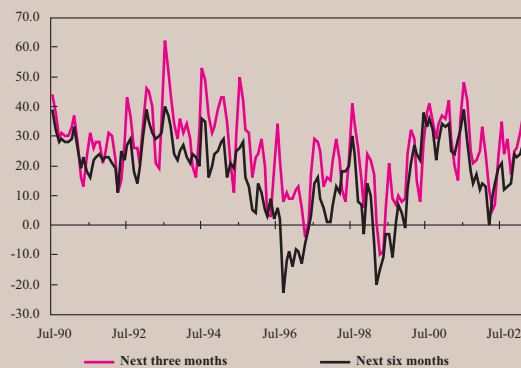
²² Private think-tank.

FIGURE 23
BUSINESS PERCEPTION OF THE ECONOMIC SITUATION



Source: Fedesarrollo Business Opinion Poll (EOE).

FIGURE 24
PRODUCTION EXPECTATIONS FOR THE NEXT THREE AND SIX MONTHS



Source: Fedesarrollo, EOE.

The results of the Combined Industrial Opinion Poll (EOIC) conducted by the National Association of Industrialists (ANDI) in July, August and September coincide with those of the Fedesarrollo poll. The findings for July show a relative improvement in most indicators by the start of the second half of the year. Production continued to grow at a moderate pace, while total sales rose by 2.6% in July compared with the same period the year before, after rather sluggish performance in the first quarter of 2002. Indicators of demand improved with the rebound in orders, while stock on hand remained low. Orders were ranked as normal or high by 80.7% of those surveyed. This implies an increase of almost 12% with respect to

the results for June 2002. Use of installed capacity stayed above the 70% level.

According to the EOIC for August and September, the positive figures of recent months continue to hold and the perception is that general security has improved considerably. This is extremely positive, considering that businessmen believe insecurity is one of the factors with the greatest negative impact on production.

The stability of credit and interest rates is also important to business confidence. According to a poll conducted by Banco de la República in October, the current state of liquidity and the availability of credit in the economy are generally perceived as improving. The bulk of those surveyed also believe the positive

trend in liquidity and credit supply will continue during the second half of the year (Figure 25).

No major changes in interest rates are expected. Those surveyed by Banco de la República expect the time deposit rate (DTF) to stay between 8% and 9% during the coming months (Figure 26). The anticipated stability is compatible with the general perception that current liquidity in the economy is good.

These findings point to a general improvement in economic activity, which also boosts expectations for the business climate in general. However, the results are still weak. The improvement in indicators is slight and has yet to be sustained for a significant period of time. The business community believes a

FIGURE 25

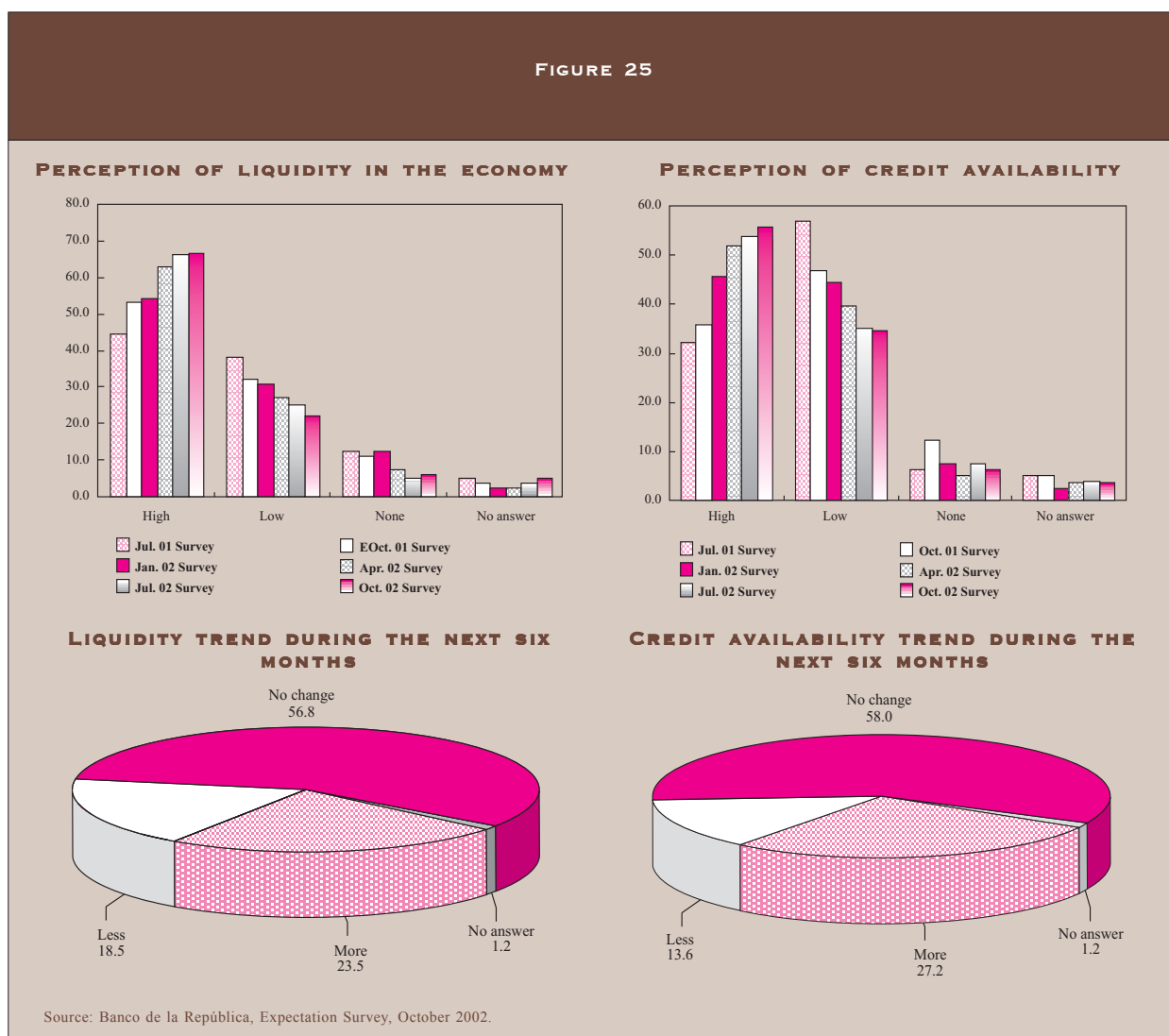
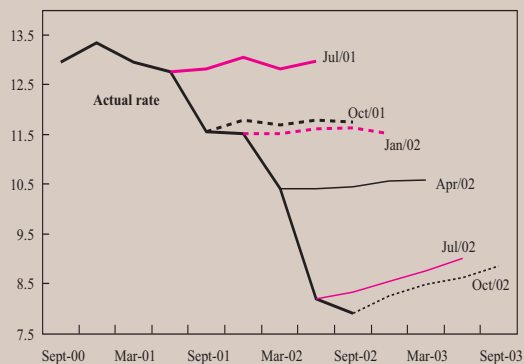


FIGURE 26
ACTUAL INTEREST RATE (DTF) AND CHANGE IN EXPECTATIONS
 (EFFECTIVE ANNUAL RATE)



Source: Banco de la República, Expectation Survey, October 2002.

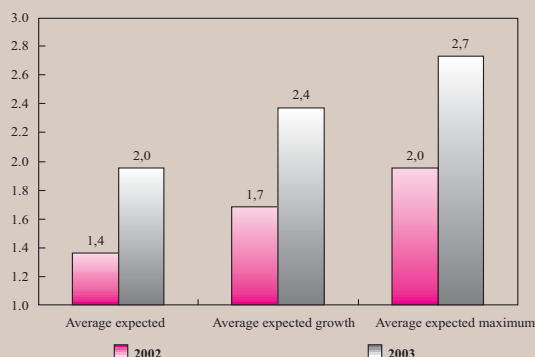
definite economic take-off depends on how the political scene plays out, particularly with respect to labor and pension reforms and the fate of the proposed referendum. For now, the climate is perceived as tranquil. Business is confident the current administration is determined to enact the more urgent economic reforms. Announcement of the beginnings of an agreement with the International Monetary Fund (IMF) helped to reassure the government, investors and the markets (TES transaction rates declined and there was a halt in escalation of the dollar).

In view of this situation, expectations for aggregate economic growth are still very conservative. According to the expectations survey conducted by Banco de la República, 1.7% growth is expected in 2002 and 2.4% in 2003. Most of those surveyed anticipate no short-term changes in personnel. Indirectly speaking, this also indicates they have no ambitious plans for investment in the near future (Figure 27).

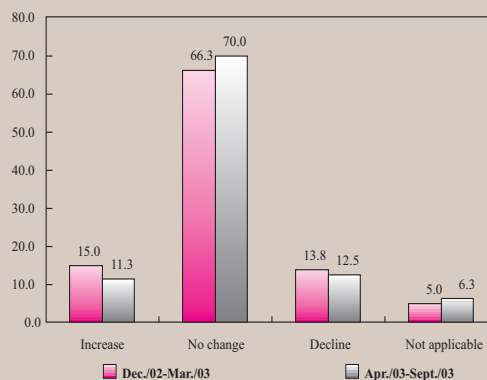
The private sector has yet to react to the fiscal adjustment being proposed to reduce spending and raise taxes. However, it knows the adjustment is necessary if the country is to build a solid base for long-term economic growth.

FIGURE 27
 (PERCENTAGE)

EXPECTED GDP GROWTH FOR 2002 AND 2003



SHORT-TERM AND MID-TERM CHANGES IN COMPANY PERSONNEL



Source: Banco de la República, Expectation Survey, October 2002..

4. Conclusions

The financial system's exposure to the private corporate sector rose at the start of the year, although only slightly, after having declined steadily between 1998 and 2001. The risk posed to the financial system by the leading sectors of the economy continues to abate, insofar as the quality of their portfolios is on the mend. Although construction is still the sector with the worse indexes, the quality of its portfolio has shown steady improvement. If the construction sector continues to grow, the quality of its portfolio will continue to improve and there will be less risk for the financial system.

The financial health of companies has undoubtedly improved in recent years, and the critical moments

for business between 1998 and 1999 seem to be a thing of the past. However, the financial situation in the corporate sector remains extremely vulnerable to changes in certain macroeconomic variables. The effect of devaluation in the third quarter of 2002 is a case in point

As to profitability, the corporate sector is showing a firm tendency to recover, having achieved levels quite similar to those registered prior to the crisis in 1998-1999. Although, there continue to be sharp differences between tradable companies and those producing non-tradables. These differences between sectors are associated with the macroeconomic adjustments witnessed in recent years, particularly as of 1999, which favor a recovery in sales for companies producing tradables. However, for companies in non-tradable sectors, these adjustments led to less sales growth.

A major decline their debt and the interest they pay explains this difference between the indicators of profitability for tradable and non-tradable companies. As a result, these firms have been able to reduce their financial outlays and stabilize their return on equity after taxes at levels above those observed during the crisis. Producers of non-tradables have seen their indicators of return on equity improve, although the levels are still negative. The same cannot be said of the operating margin for this group of companies, which declined since 1997, thus contributing to the gap between company profitability in both sectors.

Companies producing tradables appears to be firmly on the road to a recovery in profitability (before and after interest), having achieved levels in 2001 well above those observed during the crisis. Clearly, the companies in tradable sectors have benefited from the recent trend in macroeconomic variables, particularly lower interest rates and increases in the real exchange rate.

As for liquidity, mid-term trends indicate up to now that companies are less vulnerable to sudden changes in extremely short-term financing. The increase in the cash ratio is concentrated in companies producing non-

tradables. Coincidentally, these are also the firms with higher levels of indebtedness and more financial pressure. However, since 1999, the improvement has been in both sectors, as demonstrated by the current ratio.

Indebtedness in the Colombian corporate sector remained stable in the medium term (1997-2001). Coverage indicators point to less risk from interest rates for the sector as a whole. Even so, companies producing non-tradables continue to have less interest coverage than companies in the tradable sectors. This is due to their poor sales performance in recent years.

The decline in interest risk in 2000 was accompanied by recomposition of company liabilities towards a larger share of long-term liabilities, essentially by exchanging the short-term debt for long-term borrowing. This is important, as it would imply less refinancing risk in the short term, making companies less vulnerable to sudden changes in terms of domestic and foreign financing.

Return on equity after taxes declined between December 2001 and September 2002 for all companies regulated by Supervalores. This was due to real devaluation in the third quarter, which abruptly reversed the downward trend in financial outlays observed in the mid-term. The decline was concentrated in the non-tradable sector, not only because external debt accounts for an important portion of its liabilities, but also due to quick growth of the short-term debt in foreign currency since the first quarter of 2002.

Liquidity indicators deteriorated in the first nine months of 2002, particularly during the last quarter, thanks to an appreciable increase in the value of current liabilities. This higher value was the result of devaluation during the period. As was to be expected with a shock of this magnitude, the drop in liquidity was concentrated in companies producing non-tradables, given the make-up of their liabilities and growth of the short-term debt in foreign currency during the first half of the year.

The period between December 2001 and September 2002 saw a general decline in indebtedness indicators

to levels very similar to those observed during the crisis. This is the result of devaluation in the third quarter, which raised the peso value of the foreign debt and the value of debt service during this period. Again, the downturn was concentrated in companies producing non-tradables. Their coverage levels are compromising and well above those registered during the crisis.

Consequently, expectations for aggregate economic growth are still very conservative. According to the expectation survey conducted by Banco de la República, growth somewhere near 1.5% is expected in 2002 and 2.3% in 2003. Most of those polled anticipate no short-term changes in personnel. Indirectly speaking, this also indicates they have no ambitious investment plans for the near future. The indicators seem to show the likelihood of a moderate increase in demand for credit in the short term, similar to the one in recent months.

B. HOUSEHOLDS

The purpose of this section is to examine the household sector of the economy and to identify the risks it could pose to the financial system. The emphasis is on the financial system's current exposure to the household debt, how household ability to pay has evolved, and what is expected household borrowing in the future. Unless otherwise indicated, the accounting information comes from the Banking Superintendent and the survey data, from Fedesarrollo.

As mentioned earlier, two classification criteria were selected to examine the household debt. The first is the sum of the total individual portfolio and credit to legal entities in amounts not exceeding 100 times the minimum monthly wage. The second refers to the sum of the mortgage portfolio and the consumer portfolio. Table 8 shows the division between the mortgage, commercial, microcredit and consumer portfolios in June 2002, for each of the two criteria.

TABLE 8
HOUSEHOLD LOAN PORTFOLIO BY TYPE

Type	Criterion 1		Criterion 2	
	Trillion pesos	percentage of portafolio to households	Trillion pesos	porcentaje de portafolio to households
Mortgage	11.2	41	11.7	63
Consumer				
Credit card	1.6	6	1.6	9
Other	5.1	19	5.3	28
Commercial	9.5	35	0	0
Microcredito	0.1	0	0	0
Total	27.6	100	18.7	100

Source: Banking Superintendent. Banco de la República calculations.

1. Exposure²⁴

a. Amounts and General Exposure²⁵

The household debt has lost weight as a portion of total assets in the financial system. By the first half of 2002, its share had been reduced by about 1.9% (Figure 28). However, in spite of its decline since 1998, the household debt continues to account for an important percentage of the system's assets (nearly one third). Figure 29 shows the weight of asset-side lending operations for the household sector as a portion of total asset-side lending operations in the financial system.

The household debt declined in real terms by 4.7% between January and June 2002. This is similar to the reduction in total asset-side lending operations during the same period, which came to 4.9%. Accordingly, the household portion of the total portfolio remained virtually unchanged during these six months, at around 58%

²⁴ The amount of household credit extended by lending agencies was included when assessing the system's exposure to the household debt, as was the amount of mortgages held by agencies of this type.

²⁵ The first household portfolio criterion was used in this section

FIGURE 28
HOUSEHOLD PORTFOLIO AS A PORTION OF TOTAL ASSETS IN THE FINANCIAL SYSTEM

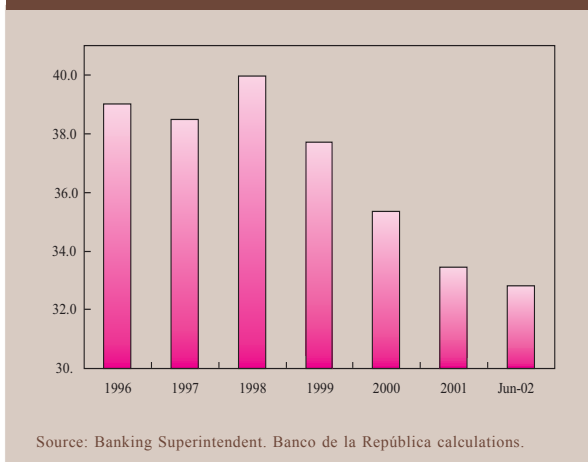
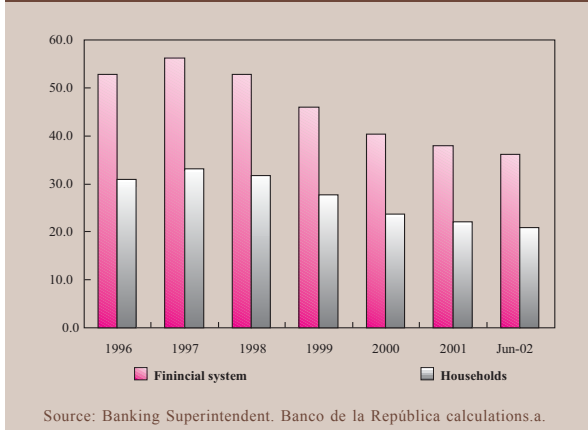


FIGURE 29
HOUSEHOLD PORTFOLIO AND THE FINANCIAL SYSTEM
(TRILLIONS OF 1998 PESOS)

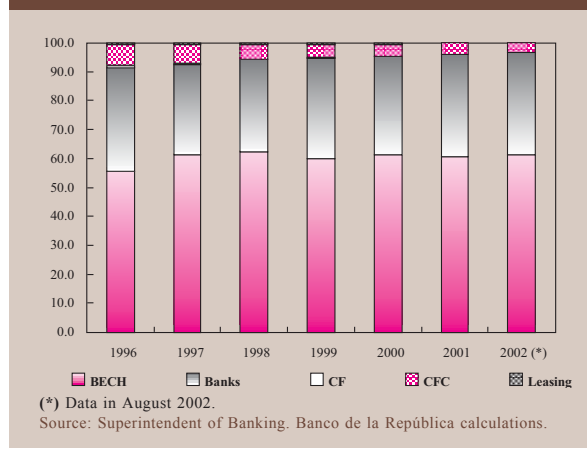


b. Exposure per Type of Institution²⁶

Knowing the type of institutions most vulnerable to performance of the household debt necessitates knowing the amount of financing extended to these agents and their share of the total portfolio. As Figure 30 shows, mortgage banks (BECH) are still the sector with the largest home loan portfolio, followed by commercial banks and, to a lesser extent, commercial finance companies. Between January and August 2002, there was a small rise in the portion held by commercial banks and BECH: the first

²⁶ In this section, the household portfolio is used as the second criterion.

FIGURE 30
SHARE OF TOTAL HOUSEHOLD PORTFOLIO, BY SECTOR
(PERCENTAGE)

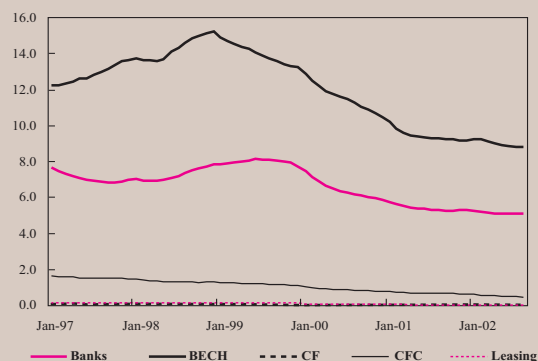


experienced an increase in share from 32.5% to 35.5%, while the BECH portion grew slightly from 60.6% to 61.2%. In the case of CFC, their percentage of the total debt (household portfolio + mortgage bonds) declined by approximately 0.8 points during the course of 2002.

As Figure 31 illustrates, the three types of financial institutions holding the most household loans continued to register decline in this type of credit during 2002. In the case of BECH, the real reduction was 5% between January and August, as opposed to 3% and 23% respectively, in real terms, for commercial banks and CFC.

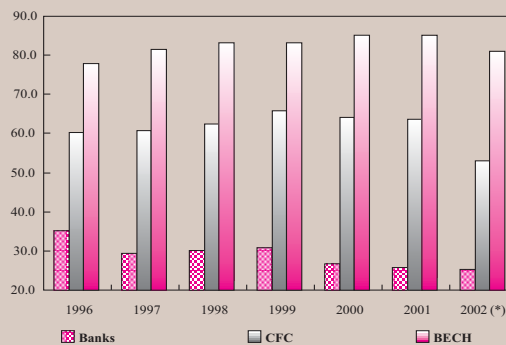
After determining which sectors of the financial system loan the most to households, the share of their total portfolio occupied by this type of credit must be determined for a better idea of their exposure. Figure 32 shows the BECH are the most exposed to the household debt, which accounts for nearly 82% of their total portfolio. However, this exposure is less than it was in 2001 (86%). Commercial finance corporations (CFC) constitute a similar case. The portion of their portfolio represented by household debt declined from 63% to 53% in 2001. Commercial banks are less exposed to the household debt, as it accounts for only 26% of their entire holdings. This percentage has been relatively constant during the past year.

FIGURE 31
HOUSEHOLD PORTFOLIO
(TRILLIONS OF 1998 PESOS)



Source: Superintendent of Banking. Banco de la República calculations.

FIGURE 32
HOUSEHOLD PORTFOLIO/TOTAL PORTFOLIO
BY TYPE OF INSTITUTION
(PERCENTAGE)



(*) Data in August 2002.

Source: Superintendent of Banking. Banco de la República calculations.

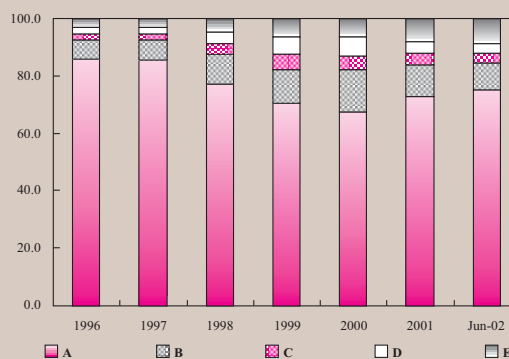
c. Quality of the Debt and Household Creditworthiness

Once the weight of the household portfolio has been determined with respect to total credit and to all other assets in the system, it is important to analyze how its quality evolved during the first half of 2002. Figure 33 shows a slight recovery in quality compared with December 2001. In effect, the percentage of class-A holdings increased from 73% to 75%, while the portion of class-E holdings remained at around 8%. Therefore, the tendency is towards a concentration in the top and bottom categories (A and E, respectively), in detriment of intermediate categories (such as B, which declined from 10.8% to 9.1% between December 2001 and June 2002).

This slight improvement in the household portfolio coincides with an increase in the real income of wage earners and can be verified with two indicators. The first is real labor income (Figure 34), which increased by 4.1% and 3.7% annually during the first two quarters of 2002. Despite a slight reduction in the last quarter, labor income was above the levels observed throughout 2001. This may have improved the ability of certain households with wage earners to pay their debts.

The second indicator; that is, the real industrial wage index, also rose in relation to 2001, and is at its highest since 1997 (Figure 35). This seems to have halted the downward trend observed in 2001. After negative annual growth rates during the last months of 2001,

FIGURE 33
QUALITY OF THE HOUSEHOLD PORTFOLIO
(PERCENTAGE)



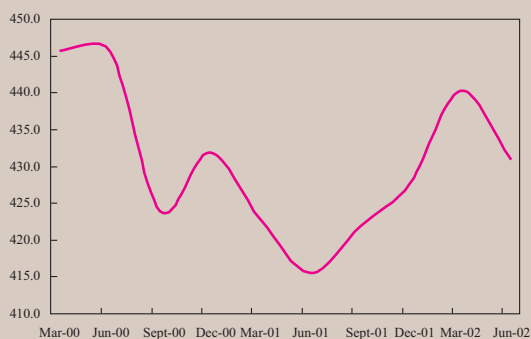
Source: Superintendent of Banking. Banco de la República calculations.

this index has recovered in 2002, registering 2.78% average annual growth.

The quality of the household portfolio may also have been affected by the trend in employment and unemployment throughout the economy. Contrary to the rise in the income of wage earners, the employment rate shows no clear sign of recovery and has stayed at levels similar to those observed at the start of the year (Figure 36). Consequently, no conclusions can be drawn from these rates for a clear indication of changes in household ability to pay.

The price of housing is another factor that can influence household ability to pay. The housing price

FIGURE 34
LABOR INCOME
(THOUSANDS OF 1999 PESOS)



Source: National Bureau of Statistics (DANE), Continuous Home Survey (ECH). Calculations by the National Department of Planning (DNP).

FIGURE 35
REAL WAGE INDEX - INDUSTRIAL MANUFACTURING

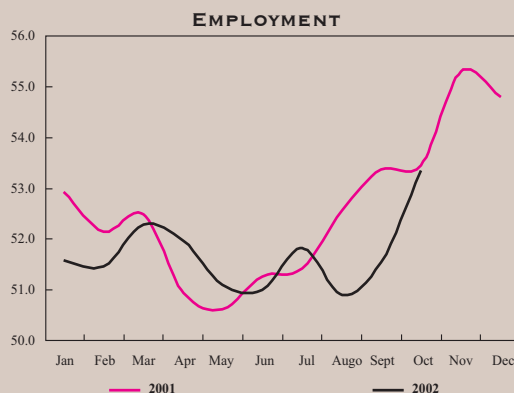


Source: DANE. Banco de la República calculations

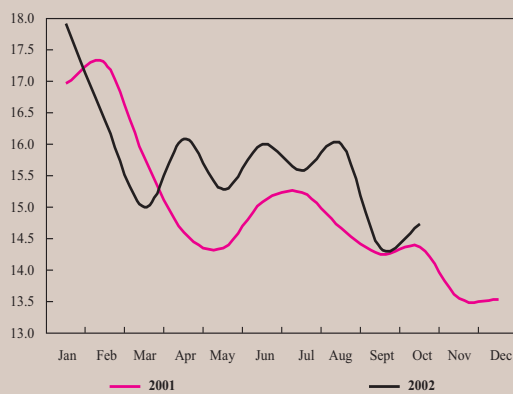
index²⁷ for Bogotá and Medellín exhibited a decline since November 2001, followed by a slight increase as of June 2002 (Figure 37). This apparent volatility allows for no categorical conclusions on how housing prices influenced household ability to pay in the first half of 2002. However, the sharp drop in housing prices as of 1997 appears to have evened out since early 2001. In fact, these prices seemed to stabilize as of that date, with less negative annual growth rates than in 1999 and 2000. The average increase in the city of Bogotá between 1999 and 2000 was -7.4% as opposed to -0.7% between 2001 and August 2002,

²⁷ This index was deflated using the CPI, as it shows how the price of housing evolved in relation to the price of the consumer market basket.

FIGURE 36
EMPLOYMENT AND UNEMPLOYMENT RATES
NATIONAL TOTAL
(PERCENTAGE)



UNEMPLOYMENT



Source: DANE. Banco de la República calculations.

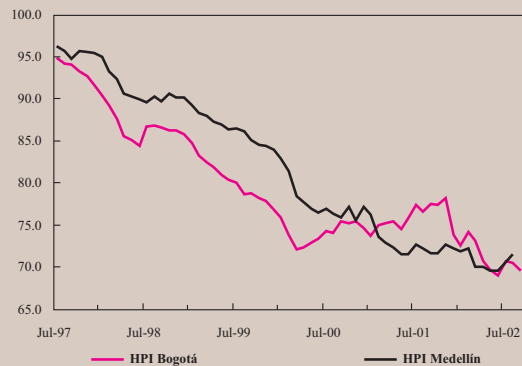
while respective growth rates in Medellín were -7.5% and -5.1%.

2. Outlook²⁸

Several indicators associated with household consumption, spending and sale of assets are analyzed in this section to arrive at an overview of the economic

²⁸ Los datos que a continuación se presentan provienen de dos encuestas realizadas por Fedesarrollo. La primera es semestral y se denomina encuesta de coyuntura social. El módulo utilizado es "condiciones económicas" en el cual se realizan preguntas referentes al gasto, empleo y venta de activos de los hogares. Se utilizan las últimas cinco etapas de dicha encuesta, que cubren el período comprendido entre abril de 2000 y mayo de 2002. La segunda encuesta se denomina índice de confianza del consumidor y contiene preguntas referentes a las expectativas de los hogares sobre las condiciones económicas propias y las del país. Se utilizan las encuestas realizadas desde noviembre de 2001 a octubre de 2002 (mensuales). El universo de estudio está constituido por los hogares de las áreas urbanas de las ciudades de Medellín, Barranquilla, Bogotá y Cali.

FIGURE 37
REAL HOUSING PRICE INDEX (HPI)
(PERCENTAGE)



Source: DNP

FIGURE 38
CONSUMER CONFIDENCE INDEX (CCI) AND
ECONOMIC CONDITION INDEX (ECI)
(PERCENTAGE)



Source: Fedesarrollo. Banco de la República calculations.

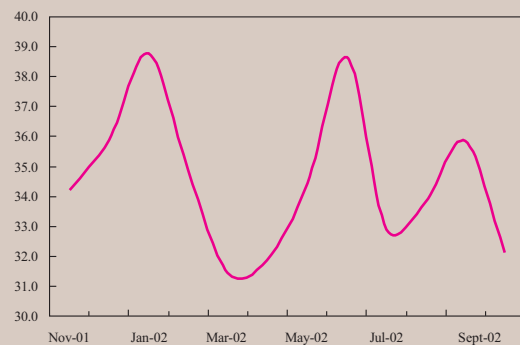
situation of households and their expectations. This can provide an idea of how household decisions transcend to variables that are relevant for the financial system (such as demand for credit or ability to pay).

a. Consumption

According to the consumer confidence index (CCI) and the economic condition index, there has been a sizable increase since April in the percentage of households who believe their economic situation and that of the country will improve in the near future (Figure 38). This optimism was high in June and August. However, after June, the tendency became ambiguous and there is no consistent pattern on the future demand for credit among households.

On the other hand, the percentage of households who believe the time is right to purchase a home, consumer durables such as furniture and electrical appliances, or an automobile experienced a major setback in October, after having increased since June (Figure 39). Consequently, even though households are unclear about the country's economic situation in the next 12 months (CCI), surveys show that, until September, they found the purchase of goods usually financed with credit to be more attractive than before. Hence, the results of last month's survey make the future demand for credit uncertain.

FIGURE 39
PERCENTAGE OF HOUSEHOLDS CONVINCED THE TIME
IS RIGHT TO PURCHASE A HOME, FURNITURE,
ELECTRICAL APPLIANCES OR AN AUTOMOBILE

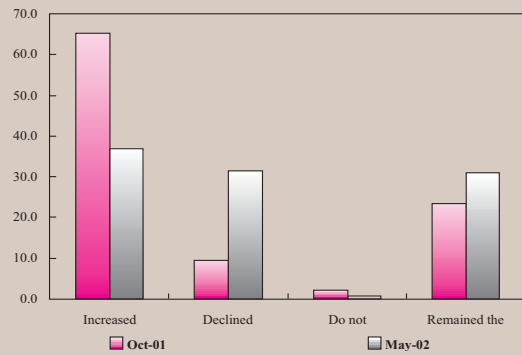


Source: Fedesarrollo. Banco de la República calculations.

b. Spending

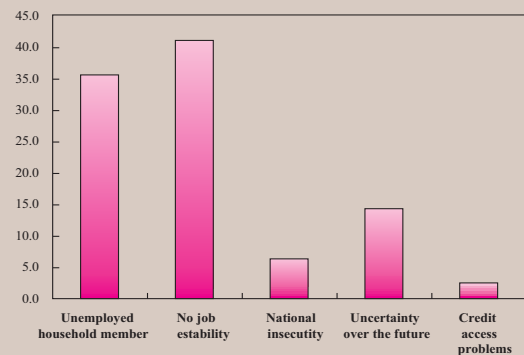
In May 2002, 31.5% and 31.0% of the households indicated they had reduced or maintained their spending during the previous six months, as opposed to 9.4% and 23.3% of the households reported in October 2001 (Figure 40). The results of the survey suggest this decline in spending is due to causes associated with less income, such as unemployment or lack of job stability, and not to causes stemming from difficulties with access to credit from the financial sector (Figure 41). Cali and Bogotá were the cities where more households were obliged to reduce their spending (48% and 38%, respectively).

FIGURE 40
HOUSEHOLD SPENDING TREND IN THE LAST SIX MONTHS
(PERCENTAGE)



Source: Fedesarrollo. Banco de la República calculations.

FIGURE 41
CAUSES OF THE REDUCTION IN SPENDING
(MAY 2002)
(PERCENTAGE)



Source: Fedesarrollo. Banco de la República calculations.

c. Sale of Assets

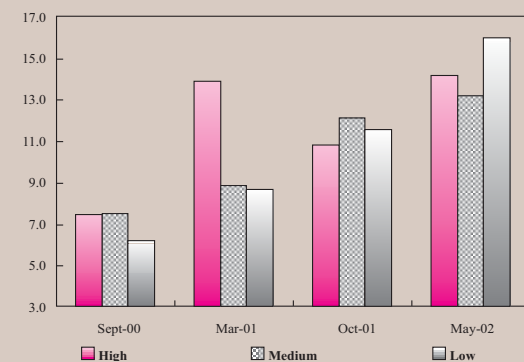
The percentage of households obliged to sell a portion of their property or belongings to meet unforeseen expenses or to offset loss of income rose considerably between October 2001 and May 2002. This tendency is more pronounced among lower income households, where the proportion that sold assets increased from 12% to 16%. In the middle and upper income households, this proportion rose by one and three percentage points, respectively (Figure 42).

3. Conclusions

The first six months of 2002 witnessed a continuation of the decline in household debt that begun in 1998: This trend took the household debt to the lowest level since 1996, affecting BECHs as well as commercial banks and CFCs.

BECHs are still the primary source of household credit, even though commercial banks gained a small share of the total household portfolio during the period from January to August. By the same token, BECHs are more exposed to debt of this type, which accounts for 82% of their total portfolio, even through their portion has declined during the course of 2002 to date. CFCs face a similar situation. Although household loans are an important part of the total, there is evidence their credit is becoming less concentrated through dispersion towards other agents. Commercial banks, for their part, are not

FIGURE 42
HOUSEHOLDS SELLING ASSETS TO COVER UNFORESEEN EXPENSES OR TO COMPENSATE FOR LESS INCOME
(PERCENTAGE BY BRACKET)



Source: Fedesarrollo. Banco de la República calculations.

overly dependent on the household trade, which makes them less vulnerable to sudden changes in the circumstances facing households.

Compared with 2001, the quality of the household portfolio improved slightly during the course of 2002, due to an increase in the class-A portfolio. This coincides with a lesser drop of prices on assets and an increase in the income of wage earners with respect to the previous year, suggesting this sector of the population has enhanced its ability to pay. However, the trend in employment and unemployment rates makes it impossible to say the same for all households.

As to future household borrowing, the indexes of consumer confidence and economic condition are relatively high with respect to last year, and consumer confidence surveys suggest households would begin to request more loans if the perception witnessed in the last five months were to continue. These results should be regarded cautiously, given the volatility shown by aggregate indexes of confidence and particularly with the October decline in the number of households who believe the time is right to buy consumer durables.

C. NON-FINANCIAL PUBLIC SECTOR

The purpose of this section is to analyze the pattern of the debt in the non-financial public sector, emphasizing the potential risks that could affect the stability of the domestic financial system. With this in mind, we begin with a look at the financial system's recent exposure to the public debt, including the course of the NFPS debt and how it has developed. There is also information on the trend in the internal and external debt of the national government (NG), which is the principal debtor of the sector, followed by an analysis of how the debt of territorial agencies has evolved.

1. Financial System Exposure to the Public Debt²⁹

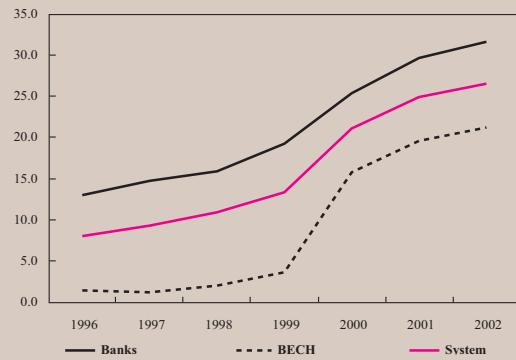
a. Trend in Exposure

The financial system's exposure to the public debt has increased in recent years, with the sum of the public portfolio and public securities accounting for a growing portion of assets on the balance sheet of financial institutions. The ratio went from 8% in December 1996 to 26% in June 2002. As Figure 43 illustrates, most of this growth occurred between 1999 and 2002.

A real decline in the system's assets, combined with real growth in the public debt to the system, was

²⁹ The figures in this section are from the Banking Superintendent. They pertain to the capital portfolio and government bonds on the balance sheet of financial institutions. The IOE group is included.

FIGURE 43
(PUBLIC PORTFOLIO + GOVERNMENT BONDS)
/ASSETS
(PERCENTAGE)



Source: Banking Superintendent. Balances sheets of financial institutions.

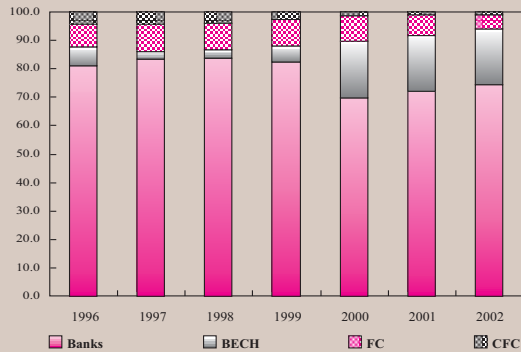
responsible for the increase. Assets fell at an average annual rate of 3.7% in real terms between 1996 and 2001, while real average annual growth in the public debt during the same period was 20.7%. As to nominal balances, the public debt listed on the balance sheet of companies in the financial system rose from Col\$4.7 t in 1996 to Col\$20.9 t in December 2001. The first half of 2002 saw this trend continue, when assets in the system declined by 3.4% in real terms compared with December 2001 and the public debt experienced a real 2.9% increase to Col\$22.5 t.

b. Trend in Exposure per Type of Institution

Banks have more direct exposure to the public debt. The ratio of public debt to assets in the banking sector rose from 13% in 1996 and 32% in June 2002, which is substantially more than the percentage for other financial institutions. This is important insofar as banks are the main creditors of the public sector in the domestic financial system (Figure 44). They account for 74% of the public debt listed on the balance sheet of financial institutions.

However, although banks are the principal creditors of the public sector, their participation within the financial system in the last seven years has been far from consistent. Between 1999 and 2002, they lost an important share, even though the level of bank lending to the public sector increased. This reduction was due to an increase in government bonds held by

FIGURE 44
TREND IN CREDITOR SHARE OF THE PUBLIC DEBT
(PERCENTAGE)



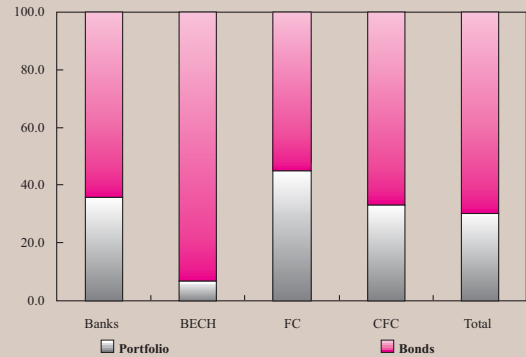
Source: Banking Superintendent. Balances sheets of financial institutions.

mortgage banks (BECH) (from Col\$0.8 t to Col\$3.1 t). Their portion of public credit rose from 7% in 1999 to 19% in 2000, which is now the current level. Although BECH participation as creditors of the public system has been marginal, the CF and CFC have seen their share decline in recent years.

Growth in the public sector's debt to the financial system was fundamentally due to an increase in the amount of government bonds held by financial institutions. This was particularly true in recent years, with the trend towards recomposition of assets in the financial system, which favored an increase in investments to the detriment of the loan portfolio. As illustrated by Figure 45, 70% of the public debt to the financial system is represented in bonds, while the loan portfolio accounts for only 30%. The bond/public debt ratio for banks is below that of the system as a whole (64%). For BECH, it is much higher (93%).

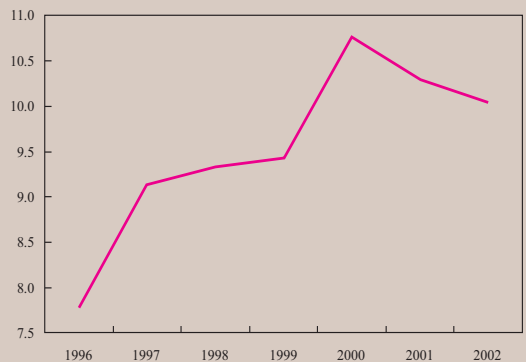
Bonds have gained ground with the financial system as a public debt instrument, even though the public's share debt in the loan portfolio has declined. The financial system increased its holdings in government bond at a real average annual rate of 42.9% between 1996 and 2001. The loan portfolio declined at a real average annual rate of 1.6% during the same period. This pattern continued during the first six months of 2002, with a real increase of 6% in bonds and a real decline of 8% in the loan portfolio.

FIGURE 45
PORTFOLIO SHARE AND GOVERNMENT BONDS
(PERCENTAGE)



Source: Banking Superintendent. Company financial statements.

FIGURE 46
PUBLIC PORTFOLIO COMPARED WITH THE TOTAL
PORTFOLIO OF THE SYSTEM
(PERCENTAGE)



Source: Banking Superintendent. Balances sheets of financial institutions.

Although the financial system's portfolio of public debt has declined in real terms since 1998, up until 2000 the drop in the public portfolio was less than in the portfolio as a whole. This meant an increase in the ratio of public debt to the total portfolio. However, after 2000, the reduction in the public debt was more pronounced than the decline in the total portfolio. This lowered the public debt as a share of the total portfolio (Figure 46).

Private finance institutions account for 75% of the public debt to the financial system³⁰. The other 25%

³⁰ In both the public and private systems, most of the public debt to the financial system is concentrated in banks (78% in the case of public institutions and 73% in private ones).

is the debt to state-owned finance companies. As illustrated in Figure 47, the make-up of the public debt to the financial system, per type of institution, has remained relatively stable in recent years. Private institutions ceded some of their share to state-owned institutions between 1996 and 2002, when their percentage of the public debt to the financial system declined from 80% to 75%. Nevertheless, state-owned institutions were more directly exposed to the public debt than private institutions in the sense that credit extended to the private sector accounts for a larger portion of the assets of the former than the latter. For example, loans to the public sector and government bonds account for 36% of the assets of state-owned financial institutions as a whole. The proportion is less (24%) for private institutions as a group.

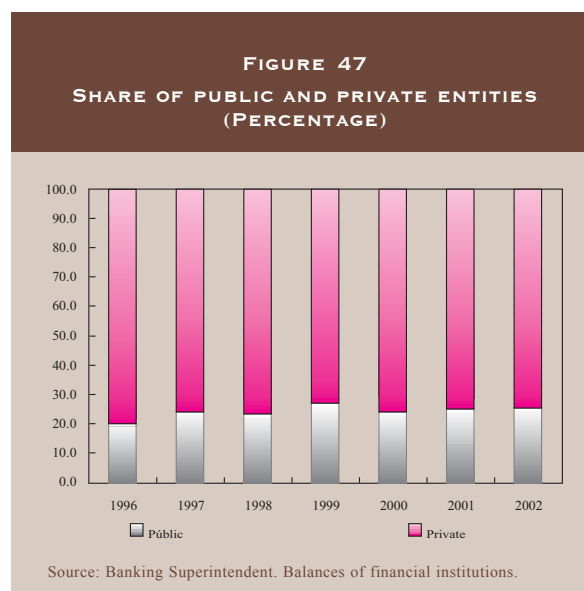
In short, recent years have seen a major increase in the financial system's exposure to the public debt, primarily through the purchase of government bonds. Commercial banks are exposed the most, especially those owned by the state, since more of their assets are used for credit to the public sector. Although private banks have fewer assets committed to the public sector, they account for the largest portion of the public debt to the financial system. The BECH have also expanded their portion in recent years, mainly through bond purchases.

Because of this growth in exposure to the public sector, the stability of the financial system depends increasingly on how the public sector performs. Accordingly, it is important to monitor the course of borrowing by the public sector and its ability to pay.

2. Aggregate NFPS Debt ³¹

The gross NFPS debt was Col\$101.4 t in December 2001. It rose 17.7% in nominal terms during the first nine months of the year to Col\$119.3 t. In real terms, this increase was 11.8% and implied a considerable hike in the gross NFPS debt as a portion of GDP³²,

³¹ The information in this sector is provisional for 1999 and 2000, and preliminary for 2001 and 2002.



which went from 53.5% in 2001 to 59.8% in September 2002 (Table 9).

The first nine months of the year saw the gross NFPS debt increase by 11.8% in real terms, thanks to the combined effect of a 9.5% real increase in the internal debt and a 14.0% real increase in the external debt valued in Colombian pesos³³. This reversed the trend towards the internal debt accounting for more of the total debt. However, the composition of the internal debt-external debt is still quite similar (Table 9).

Table 10 shows how the net debt in the non-financial public sector has evolved³⁴ in the last seven years. Growth in the net NFPS debt during the first nine months of 2002 exceeded that of the gross NFPS

³² Because GDP is a flow and debt is a stock, GDP was annualized in September. Third quarter 2002 nominal GDP was calculated as follows: third quarter GDP 2002 = third quarter GDP 2001 * (1 + real annual growth rate) * [(1 + inflation measured by the September 2001 GDP deflator to June 2002) * (1 + inflation measured by the CPI between June and September 2002) - 1].

³³ The increased pace of devaluation between June and September prompted this expansion in the value of the external debt in Colombian pesos. The external debt in dollars declined by 1.8% during the first nine months of 2002.

³⁴ In this context, the term "net" refers to the public debt excluding liabilities between NFPS institutions. In other words, government bonds held by the rest of the NFPS and treasury notes are deducted from the internal debt.

TABLE 9
GROSS NFPS DEBT 1/

Year	Internal External Total			Internal External Total			Internal External		Internal External Total		
	(Billion pesos)			(Percentage of GDP)			(Share)		(Nominal Annual Growth Rate) 2/		
Dec-95	9.9	12.0	21.9	11.8	14.2	26.0	45.2	54.8			
Dec-96	12.7	13.0	25.7	12.6	12.9	25.5	49.3	50.7	27.7	8.3	17.1
Dec-97	18.8	17.7	36.5	15.4	14.6	30.0	51.4	48.6	48.1	36.3	42.1
Dec-98	23.9	24.7	48.7	17.0	17.5	34.5	49.2	50.8	27.5	39.3	33.3
Dec-99	30.6	32.9	63.5	20.5	21.1	42.6	48.2	51.8	27.8	33.0	30.5
Dec-00	42.1	41.9	84.1	24.8	24.1	49.0	50.1	49.9	37.7	27.5	32.4
Dec-01	50.6	50.8	101.4	26.7	26.8	53.5	49.9	50.1	20.2	21.1	20.6
Sept-02	58.4	60.9	119.3	29.3	30.5	59.8	48.9	51.1	15.3	20.0	17.7

1/ Does not include: i) bonds issued by the Ministry of Finance and Public Credit to cover pension liabilities; ii) the pension liabilities of the national government with public universities in the territories; iii) budget loans and payment agreements between the national government and other NFPS institutions.

2/ For September 2002, this is the rate of growth compared with December 2001.

Source: Banco de la República, Economic Research.

TABLE 10
NET NFPS DEBT 1/

Year	Internal External Total			Internal External Total			Internal External		Internal External Total		
	(Billions of pesos)			(Percentage of GDP)			(Share)		(Nominal Annual Growth Rate)		
Dec-95	7.1	12.0	19.1	8.4	14.2	22.7	37.2	62.8			
Dec-96	8.4	13.0	21.4	8.3	12.9	21.3	39.2	60.8	18.1	8.3	12.0
Dec-97	12.6	17.7	30.4	10.4	14.6	25.0	41.6	58.4	50.5	36.3	41.9
Dec-98	14.0	24.7	38.8	10.0	17.5	27.5	36.2	63.8	11.0	39.3	27.5
Dec-99	18.8	32.9	51.7	12.6	22.1	34.7	36.4	63.6	33.9	33.0	33.3
Dec-00	27.4	41.9	69.3	16.1	24.1	40.3	39.5	60.5	45.7	27.5	34.1
Dec-01	32.8	50.8	83.6	17.3	26.8	44.1	39.2	60.8	19.7	21.1	20.5
Sept-02	40.5	60.9	101.5	20.3	30.5	50.9	40.0	60.0	23.7	20.0	21.5

1/ Does not include: i) bonds issued by the Ministry of Finance and Public Credit to cover pension liabilities; ii) the pension liabilities of the national government with public universities in the territories; iii) budget loans and payment agreements between the national government and other NFPS institutions.

2/ For September 2002, this is the rate of growth compared with December 2001.

Source: Banco de la República, Economic Research.

debt (21.5% in nominal terms, as opposed to a nominal 17.7% rise for the latter). This tendency, which raised the net/gross debt ratio from 82% in December 2001 to 85% in September 2002, implied that holdings in central government bonds and treasury notes in the rest of the non-financial public sector declined during the course of 2002 to date.

The central government (CG) is the primary NFPS debtor. It accounts for 86% of the internal debt and 84% of the external NFPS debt. In recent years, its share of the total public debt has grown and bond issues are its main source of financing. The trend in the internal and external CG debt in recent years is discussed in the following sections.

3. Central Government Debt

In the last seven years, the CG debt has grown faster than CG revenue³⁵. The debt grew at an average annual rate of 22.7% between 1995 and 2001, while the average annual increase in revenue, in real terms, was 5.9%. This non-proportional increase in these two variables expanded the CG debt/income ratio from 120.4% in December 1995 to 305.2% in September 2002. As illustrated in Table 11, there is no direct or clear relationship between an increase in the government debt and growth in government revenue. This implies a greater risk for government creditors, insofar as the CG is less able to cover its liabilities with its revenue in the event of a negative shock affecting its solvency.

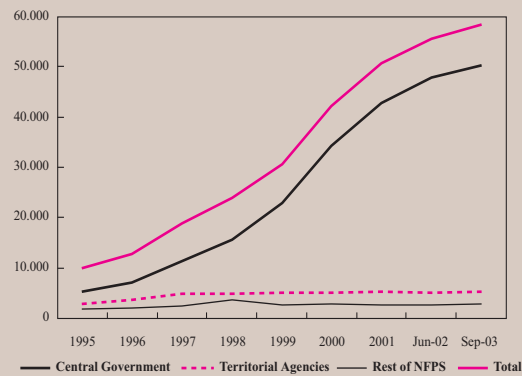
The following section focuses on the trend in the CG internal and external debt during the last seven years.

a. Internal Central Government Debt

As illustrated in Figure 48, the CG debt has grown the most in the last seven years, guiding the trend in

the gross internal debt of the non-financial public sector. After accounting for nearly 50% of the total internal debt in 1995, it represented 84% in 2001 and 86% in September 2002. In contrast, territorial agencies and the rest of the public sector have seen a gradual reduction in their share. In 1995, territorial agencies accounted for 29% of the internal debt. This proportion had fallen to 9% by September 2002, while that of the rest of the public sector went from 18% to 5% during the same period.

FIGURE 48
CHANGE IN THE GROSS INTERNAL NFPS DEBT, BY LENDER 1995-2002
(BILLIONS OF PESOS)



Source: Banco de la República.

TABLE 11
CG DEBT VERSUS INCOME

Year	CG DEBT	Income	Debt / Income	Growth	
				Debt	Income
	(Billions of pesos)			(Percentage)	
1995	11.560	9.600	120.4		
1996	14.452	12.140	119.0	2.8	4.0
1997	21.778	15.238	142.9	28.0	6.6
1998	31.231	16.880	185.0	22.9	(5.1)
1999	45.487	20.164	225.6	33.3	9.4
2000	66.157	23.197	285.2	33.7	5.8
2001	84.411	28.942	291.7	18.5	15.9
2002 (*)	89.719	28.395	305.2	1.4	(3.5)

(*) September 2002
Source: Banco de la República.

As mentioned earlier, government bond issues have been the preferred source of CG financing in recent years. At the internal level, bonds account for 93% of the CG debt; treasury notes represent 5%. The portfolio with the domestic financial system represents only 2%. Figure 49 shows how distribution of the gross internal CG debt has evolved, per instrument, between 1995 and September 2002. Its composition, per debt instrument, has been extremely stable in recent years, with bond issues accounting for more than 90% of internal government borrowing and the portfolio with the domestic financial system playing a discrete role in CG funding. It is important to bear in mind that the bond portion of the total internal government debt has remained stable, even though the amount of the debt in bonds has grown substantially.

Class B treasury bonds (TES B) occupy an important role as internal public debt instruments. Since 1997, these bonds have accounted for 80% of the internal government debt, on average. Consequently, the financial terms of their sale play an important role in the amount of interest and size of the deficit. Table 12 shows a calculation of the nominal yield on TES B between 1996 and 2001. As illustrated, the real rate of return implicit in these bonds rose during 1998-1999 from 8% to 20%, where it has remained for the last three years. While this does not necessarily indicate the market perceives a growing risk from the public debt, it does mean public debt service has increased due to price and quality. Consequently, the government

is obliged to use a larger portion of its revenue for debt service, thereby becoming more vulnerable to eventual shocks that might affect its solvency.

b. External Central Government Debt

Like the internal debt, most of the external NFPS debt is attributed to the central government (84% in September 2002). Although the CG share of the external NFPS debt rose between 1995 and 2001, during the first nine months of 2002 it stayed at a level similar to that of December 2001 (Figure 50).

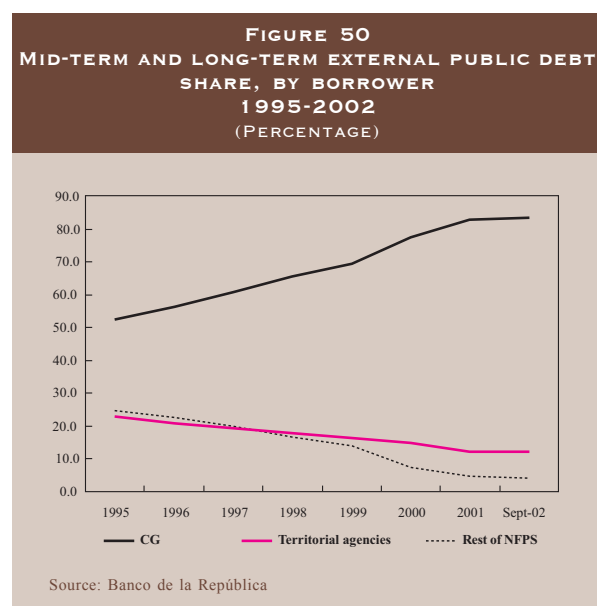
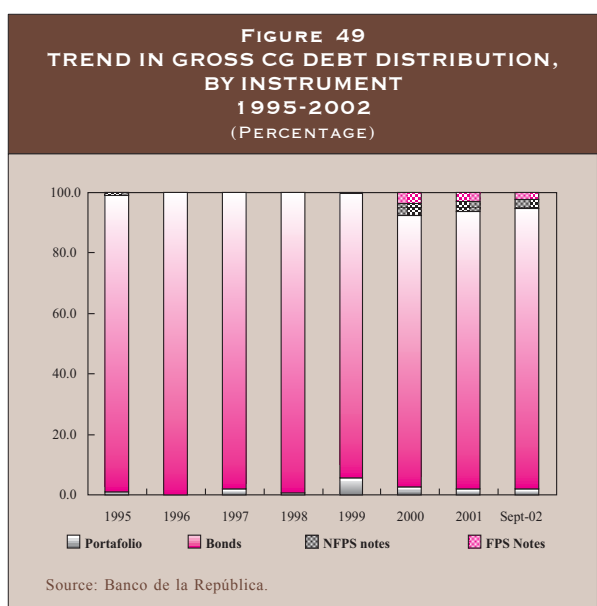


TABLE 12
IMPLICIT RATE OF RETURN ON TES B 1/
(1996-2001)

Year	Year Yield Balance		Rate	
	(Billions)		Implicit 2/	Real
(Percentage)				
1995	536	3.864		
1996	1.160	5.897	30	8
1997	1.636	9.614	28	10
1998	2.407	13.856	25	8
1999	4.098	20.100	30	20
2000	5.556	26.772	28	19
2001	7.306	33.367	27	20

1/ Includes TES in pesos, in dollars and in UVRC (units of constant real value).
2/ Calculated as payment of yield earned in year t on the capital balance effective during the year (t-1).
Source: Superintendent of Banking. Banco de la República calculations

Although the external government debt in dollars declined by 1.8% during the first nine months of 2002, from US\$18.2 b to US\$17.9 b, the external government debt valued in pesos rose by 15.1% in real terms during the same period. This was due to high devaluation during the third quarter of 2002.

Foreign bonds are still the main source of external government financing. However, they lost relative importance in comparison with other debt instruments during the first nine months of 2002, although the decline was very slight. The share of these bonds as a portion of the external government debt went from 62% in December 2001 to 60% in September 2002. This was because the government issued no foreign bonds in the first half of the year and there were two important external-internal debt swaps. Multilateral institutions, whose portion of the external government debt increased from 29% to 31%, gained the share of the external debt lost by government bonds. Commercial banks, bilateral institutions and suppliers maintained their portion during the first half of the year (Figure 51).

The financial terms of new loans contracted abroad by the public sector continued the trend towards improvement that begun in 2001. The average grace period increased slightly, as did the average repayment period. Also, the average nominal rate of interest on

loans also dropped considerably during the first half of 2002, from 9.4% in 2001 to 5.9% (Table 13). Much of the reduction in the average nominal interest rate occurred because the public sector floated no external bond issues during the first six months of 2002³⁷. Loans contracted during this period were mainly with suppliers, commercial banks and multilateral agencies.

In short, although the government saw its external debt in dollars decline during the first nine months of 2002, the external debt valued in pesos experienced a major increase due to the acceleration of devaluation during the third-quarter of 2002. The combined effect of internal and external borrowing raised the total government debt during the course of 2002 to date by 13.4% in real terms.

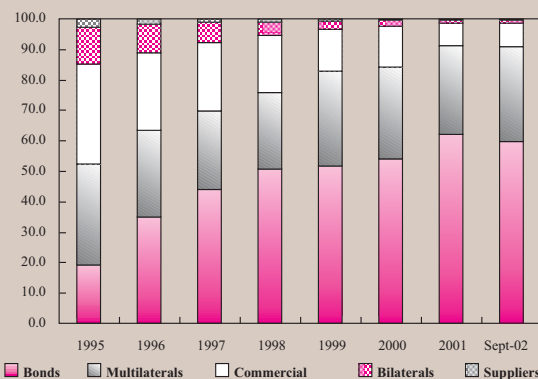
4. Territorial Debt

The territorial debt to financial institutions declined slightly during the first nine months of 2002, from Col\$3.4 t in December 2001 to Col\$3.3 t in September 2002³⁸ (Figure 52). In real terms, this is 8.6% less than the balance in December 2001 and is only a slight reduction in the territorial share in the loan portfolio of the financial system, which declined from 6.9% in December 2001 to 6.5% in September 2002. This is because the portfolio of the financial system also experienced a real reduction during the first nine months of the year. Interestingly, for the first time since 1998, the territorial debt declined faster than the total debt to the financial system (Figure 53).

a. Borrowing and Quality³⁹

The first six months of 2002 saw continued improvement in the quality of the territorial debt compared with previous years. The class-A portion

FIGURE 51
MID-TERM AND LONG-TERM EXTERNAL CG DEBT,
BY LENDER 1995-2002
(PORCENTAJE)



Source: Banco de la República.

³⁷ The current year saw only one external bond issue prior to October 2002.

³⁸ The territorial debt calculation includes only borrowing by the departments and their cities and towns. It does not include municipal and departmental companies, nor social security agencies at municipal and departmental level, or similar institutions. Borrowing refers only to the debt contracted with the domestic financial system and does not include bonds issued by the territories, which amounted to Col\$784 t in September 2002.

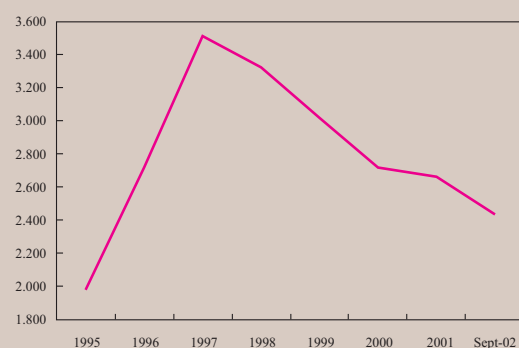
TABLE 13
FINANCIAL TERMS OF NEW LOANS

Period	Amount (US\$ millions)	Period amount contracted average term		Average interest (% nominal)
		Grace period (Years)	Amortization (Years)	
1991	2.507	6,0	12,8	7,5
1992	847	4,2	14,7	7,8
1993	1.526	3,4	12,2	6,9
1994	1.715	4,0	10,9	7,3
1995	1.715	2,7	9,1	6,8
1996	3.489	1,5	8,5	7,8
1997	2.331	1,3	10,6	8,0
1998	3.104	1,2	7,1	8,2
1999	3.861	2,4	8,9	10,0
2000	3.192	1,1	9,5	11,8
2001	6.441	2,1	9,4	9,5
2002 (*)	727	2,2	6,5	5,9

(*) First six months of 2002.

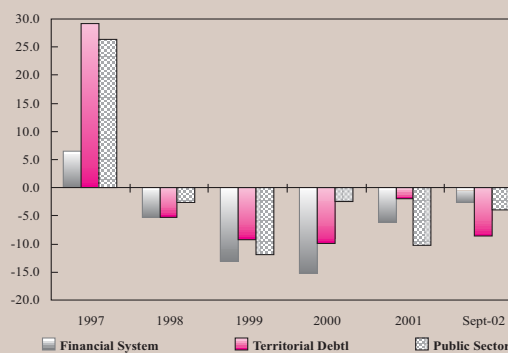
Source: Banco de la República, SGEE.

FIGURE 52
TERRITORIAL DEBT TO THE FINANCIAL SYSTEM
(BILLIONS OF 1998 PESOS)



Source: Superintendent of Banking. Calculations by Banco de la República.

FIGURE 53
GROWTH IN BORROWING BY TERRITORIAL
AGENCIES, THE PUBLIC SECTOR AND
THE FINANCIAL LOAN PORTFOLIO
(PERCENTAGE)



Source: Superintendent of Banking. Calculations by Banco de la República.

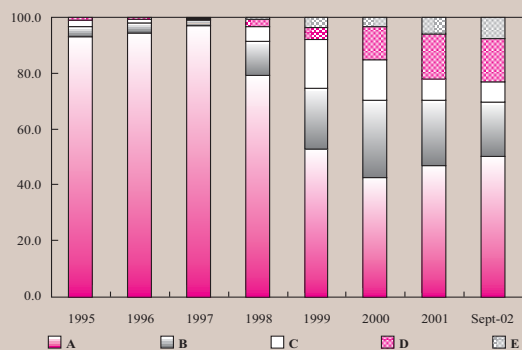
rose by three percentage points as of December 2001 and accounted for 50% in September 2002. From the onset of the recovery in portfolio quality, loan ratings have moved towards either end of the spectrum; that is, towards the highest (A) or the lowest (D and E) ratings (Figure 54).

³⁹ The territorial debt was calculated as the sum of the debt contracted by the departments and the municipalities therein. The figures pertain to asset-side lending transactions reported to the Banking Superintendent by finance companies and institutions.

The possibility of rescheduling debts with the financial system, as provided for in Law 550/1999 and Law 617/2000⁴⁰, is one of the primary reasons why the quality of territorial credit has improved. By August

⁴⁰ Under Law 617/2000, the national government guarantees 40% of the value of the rescheduled loan and 100% of new loans for fiscal adjustment, provided the territory complies with all provisions of the law. This is a fundamental aspect. Law 550/1999 allows loans to be restructured under an agreement with creditors and without a formal arrangement to avoid bankruptcy.

FIGURE 54
QUALITY OF THE TERRITORIAL DEBT
(PERCENTAGE)



Source: Superintendent of Banking. Calculations by Banco de la República.

2002, liabilities equivalent to Col\$2 t had been rescheduled under Law 550/1999. With Col\$633 b in rescheduled debt, the city of Barranquilla was the main beneficiary⁴¹. Law 617/2000 enabled 36 cities and eight departmental governments to restructure Col\$1.4 t in debt by September 2002. This is an increase of Col\$200 b in relation to December 2001. One trillion of this rescheduled amount has a 40% guarantee from the government, which has also provided 100% backing for Col\$388 b in new credit for fiscal adjustments in the territories and municipal districts.

The 2000 tax reform had an important impact on the quality of the territorial debt by authorizing one-time withdrawals from the Oil Stabilization Savings Fund (FAEP). The goal was to enable departments and cities to pay their current debt as of December 29, 2000⁴². Based on this reform, US\$218 m have been withdrawn since December 2001 and US\$169 m of this sum had been converted into cash by the end of

September 2002. In other words, an amount equivalent to 14% of the territorial debt to the financial system in September 2002 has entered the economy to pay its debts.

Although the quality of the territorial debt has improved, it is still inferior to the quality of the public sector debt. By the end of September 2002, top-rated loans to the public sector accounted for 61% of public borrowing from the financial system. This figure is eleven percentage points higher than the portion of class-A credit of the territorial debt.

The seven territories that owe the most to the financial system, including Bogotá, increased their share of the total territorial debt during the first nine months of the year, from 73% in December 2001 to 75% in June 2002⁴³. This is primarily the result of a two-percentage-point increase during the same period in the portion of the total territorial debt pertaining to Valle del Cauca. In September 2002, the Valle del Cauca department accounted for 29% of the total territorial debt.

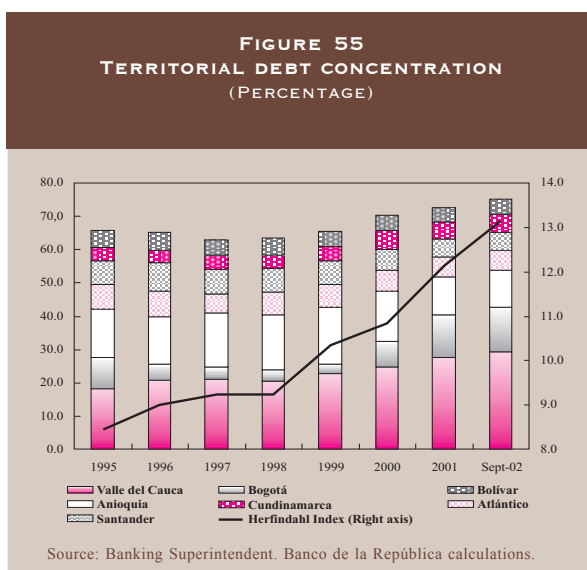
Using the Herfindahl index as a measure of debt concentration, we see that the territorial debt remained concentrated in a limited number of regions during the first nine months of the year. This rate increased from 12% in December 2001 to 13% in September 2002 (Figure 55). However, although the Herfindahl index shows moderate territorial debt concentration, the same cannot be said of territorial creditors⁴⁴. When calculating the share of territorial credit extended by financial institutions, we see it has never been more than 10% as of 1995.

⁴¹ As far as this particular figure is concerned, the liabilities of territorial agencies include items such as debts to the financial system, labor and pension debts, and those to suppliers.

⁴² The tax reform was approved in the form of Law 633/2000. Article 133 of this legislation authorizes withdrawals from FAEP by its members. Decree 1939/2001 regulates these withdrawals and indicates that the hydrocarbon-producing departments are Arauca and Casanare. The hydrocarbon-producing towns are Arauca, Arauquita, Aguazul and Tauramena.

⁴³ The territories most in debt, from uppermost down, are Valle del Cauca, Bogotá, Antioquia, Atlántico, Santander, Cundinamarca and Bolívar. A territory's debt includes the departmental government debt, plus the debt of cities and towns within the department.

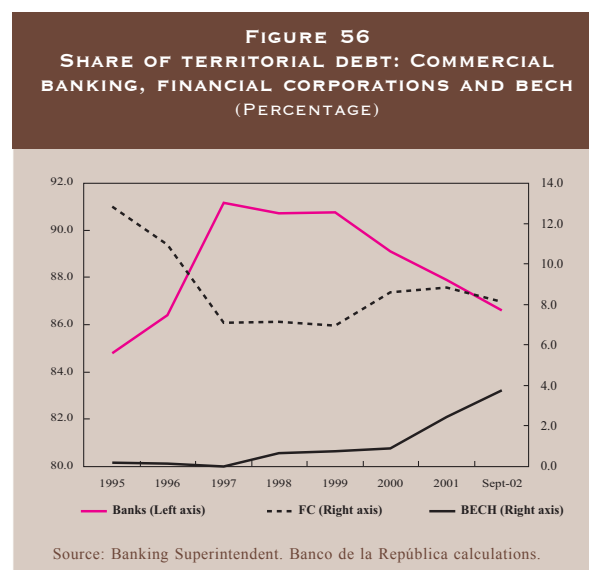
⁴⁴ By international standards, a market with an indicator above 10% but below 18% is moderately concentrated. Markets with rates above 18% are regarded as concentrated, and a change of 1% in the rate for this type of market raises concerns about a monopoly.



Accordingly, exposure to the risk of territorial debt non-payment is distributed equally among various financial institutions. However, when combining the credit extended by financial institutions belonging to the Aval Group, we see it accounts for 36% of the loans to territorial institutions. This is a high percentage, inasmuch as the assets of the Aval group represented 22% of those in the financial system in September 2002.

Commercial banks are the main lenders for territorial agencies. They account for 87% of all resources extended to this sector, followed by finance corporations (8.1%) and BECH (3.8%). As Figure 56 indicates, commercial banks have reduced their share by four percentage points since 1999, while finance corporations saw theirs increase up to December 2001, when they accounted for 8.8% of all loans to the regions. This proportion later declined during the first nine months of the year. According to the same figure, the BECH have gradually increased their portion since 1997. As to the seven territories most in debt, three continue to stand out because of the size of their debt to the financial system: Valle del Cauca, Bogotá and Antioquia.

The first nine months of 2002 saw a reduction in the level of credit extended to the territories most indebted to the financial system. In September 2002, the Valle del Cauca debt stock was Col\$711 b in 1998 pesos.

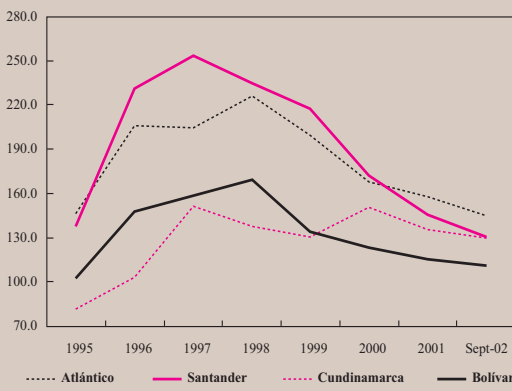
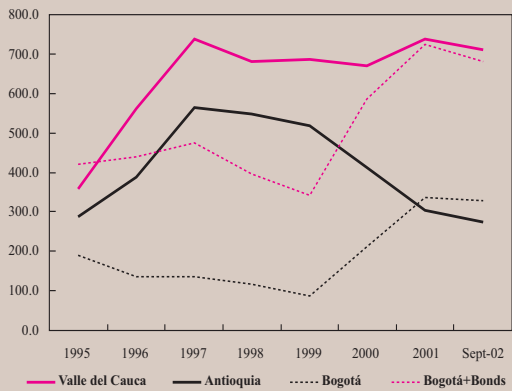


In real terms, this represents a decline of 3.6% compared with December 2001 (Figure 57) and was primarily because the city of Cali ceased to acquire new debts with the financial system. Its borrowing had grown since 1998. In real terms, the reduction was 09% during the first nine months of 2002. This provides some reassurance, particularly since the real increase in Cali's borrowing during 2001 was 25%.

Figure 57 shows Antioquia ceased to be the second region most in debt. Bogotá exceeded it in this respect. The Antioquia debt declined during 2002, but less so than in 2001 (by 10.1%, as opposed to 26.4%). During the first nine months of the year, the Bogotá debt declined at a slightly slower pace than that of Antioquia, bringing an end to the growth it had experienced since 1999. This is true even if the debt in district bonds is included. It dropped by 8.6% in real terms during the same period to Col\$345 b in 1998 pesos. Taking into account the debt in bonds and loans extended to Bogotá by the financial system, the city owes almost as much as Valle del Cauca. Both the Bogotá debt and that of Valle del Cauca began to decline during the first nine months of the year.

The next four territories with the largest debt stock at September 2002 (Atlántico, Santander, Cundinamarca and Bolívar) continued to reduce their indebtedness level, but at a rate inferior or equal to that of the year before. By September 2002, these

FIGURE 57
TREND IN THE TERRITORIAL DEBT TO THE FINANCIAL SYSTEM
(BILLIONS OF 1998 PESOS)



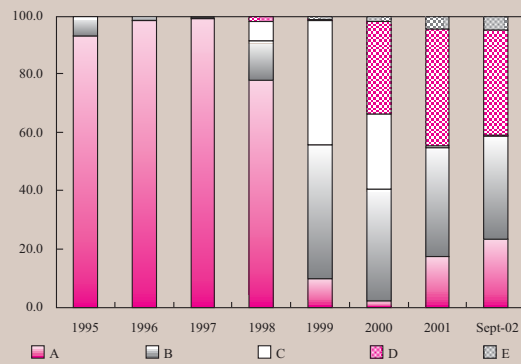
Source: Banking Superintendent. Banco de la República calculations.

four territories had lowered their debt to the financial system by 6.5% in real terms, on average (Figure 57).

Among the territories most in debt to the financial system, Valle del Cauca and Bolívar continue to have the poorest debt-quality indicators. Nevertheless, in both cases, these indicators have improved slightly compared with December 2001. In the case of Valle del Cauca, its debt-quality indicator had risen six percentage points in the class -A share by September 2002, placing 24% of the loans to Valle del Cauca in this category. Taking into account the debt rated above B, the share is 59%, which is an increase of four percentage points compared with December 2001 (Figure 58).

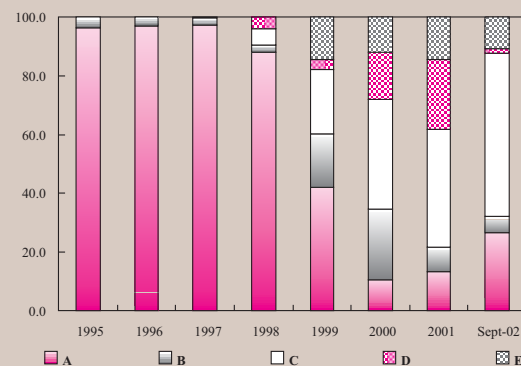
As noted in the June report, in spite of a twelve-percentage-point increase in the class-A share during

FIGURE 58
QUALITY OF THE VALLE DEL CAUCA DEBT PORTFOLIO
(PERCENTAGE)



Source: Banking Superintendent. Banco de la República calculations.

FIGURE 59
QUALITY OF THE BOLÍVAR DEBT PORTFOLIO
(PERCENTAGE)



Source: Banking Superintendent. Banco de la República calculations.

the first nine months of 2002, Bolívar is still the department with the poorest debt quality. This portion accounted for 25% of the total Bolívar debt by late September. In addition to the limited amount of class-A credit, more than half the loans to Bolívar are class C (53% of its total debt). There have already been shortfalls in payment on these loans and they are considered a major risk to the financial system. However, the portion of debt rated below C fell by 27 percentage points during the first nine months of the year and, by September, was less than half the proportion registered at the end of 2001 (Figure 59).

The quality of the Antioquia debt showed marginal improvement during the first nine months of 2002.

The class-A portion increased from 46% in December 2001 to 50% in September 2002. As in previous years, the financial system continued to regard the Bogotá debt as the best in quality. Therefore, it is rated entirely as class A.

During the first nine months of 2002, the Atlántico debt showed the most improvement in quality, with an increase of 24 percentage points in the class-A portion (Figure 60). However, the class-D share increased as well (from 19% in December 2001 to 33% in September 2002). Consequently, 54% of the Atlántico debt is rated below class B. Rescheduling Barranquilla's debts, as mentioned earlier, was primarily responsible for the improvement in quality.

b. Debtor Ability to Pay

As in the previous report, an indicator was constructed to compare each territory's debt to its total revenue. The higher a territory's debt as a share of its revenue⁴⁵, the riskier it is for the financial system to extend credit to the territory. During 2001, the debt/revenue indicator in most of the seven territories with the largest debt to the financial system either stabilized or declined slightly compared with the year before. Valle del Cauca and Bogotá were the only

⁴⁵ The total revenue of a territory is the sum of departmental, capital city and non-capital city revenue budgeted and spent, including tax, non-tax and capital receipts. This information was obtained from the Office of the Comptroller General of Colombia and covers the period up to December 2001.



exceptions, with respective increases of 15 and six percentage points in 2001.

The case of Valle del Cauca is cause for concern. By December 2001, its debt was equivalent to 72% of its revenue. This is an increase of 15 percentage points compared with December 2000 and is the highest debt/revenue ratio since 1995 among the territories with the largest debt to the financial system (Figure 61). The deterioration was primarily due to a real drop of 13% in the territory's income during 2001, coupled with a 10% increase in borrowing that same year. A closer look at the department's sources of revenue shows that real capital earnings⁴⁶ were reduced to less than half the value reported in

⁴⁶ Capital earnings include loans from finance companies, asset sales, municipal or departmental company surpluses and the like



2000. Capital earnings have accounted for one fourth of the territory's revenue, on average.

In spite of an increase of six percentage points in its debt/revenue ratio, Bogotá still has the lowest indicator of this type among the territories most in debt to the financial system (14% in December 2001). This was due to a real increase of 59% in the Bogotá debt. Total revenue fell by 12% during the same period.

Antioquia and Bolívar managed a slight reduction in this indicator during 2001. In the case of Antioquia, its debt/revenue ratio declined by seven percentage points, compared with December 2000, and was 21% in December 2001. This is slightly below the indicator for the territorial debt as a whole and is attributed primarily to the fact that Antioquia reduced its borrowing during the past year by 26% in real terms.

The debt/revenue ratio for Bolívar dropped by five percentage points due to 6.3% less borrowing and a real increase of 12% in territorial revenue. Among the territories with the largest debts, Bolívar was the only one to register growth in total earnings during 2001, thanks to a 17% increase in non-tax revenue throughout the year.

During the first nine months of 2002, the territorial debt per capita declined in six of the seven departments with the most credit from the financial system. The total territorial debt was reduced as well (Figure 62), and the total territorial debt per capita fell by 4.7%. Of the seven departments most in debt, Valle del Cauca was the only one to register an increase in debt per capita. It should be noted that the Bogotá debt per capita stabilized during the period from December 2001 to September 2002, after a dramatic rise between 1999 and 2001.

measures have proven to be effective in reducing the risk to the financial system.

5. Conclusions

As demonstrated throughout this section, the exposure of the financial system to the public sector has increased considerably during the last seven years.



Commercial banks, especially those owned by the state, are the most exposed, as they have more assets in the public portfolio and government bonds than other institutions in the financial sector. Private banks have a lower ratio of credit to the public sector compared with assets, but a larger stock of public debt on their books. For their part, the BECH substantially increased their government bond holdings in recent years, which also makes them vulnerable to the solvency of the public sector.

In turn, the public debt of the government has grown rapidly in the last few years. This poses a major problem, since government revenue has increased at a much slower pace than the debt, meaning the CG may constitute more of a risk to its creditors. Much of the risk materialized in July and August 2002 with stress on the secondary market for

government bonds. This situation, which raised the interest rate on these securities, generated losses in several areas of the economy, including the financial sector. However, it posed no stability problem for the financial system as a whole, nor solvency problems for the government. Nevertheless, the government must honor its obligation to fiscal adjustment if the markets are to regain confidence.

The first nine months of 2002 witnessed a real reduction in the territorial debt. However, its share of the portfolio held by the financial system remained at 7%. Debt rescheduling under Law 550/1999 and Law 617/2000 provided for considerable improvement in the quality of the territorial debt.

These measures have proven to be effective in reducing the risk to the financial system.

Valle del Cauca is the region with the largest debt to the financial system and continues to be a major risk. Its debt/revenue ratio deteriorated in 2000. However, during the same period and the first nine months of 2002, the quality of its debt improved and its borrowing decreased slightly, in real terms.

Bogotá has the second highest debt among the regions. However, the upward trend observed since 1999 was halted by a slight reduction during the first six months of 2002. This is a reassuring, since the city's total revenue continued to drop throughout 2001.

III

FINANCIAL SECTOR

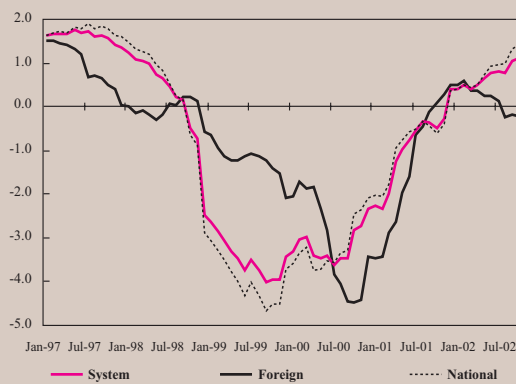
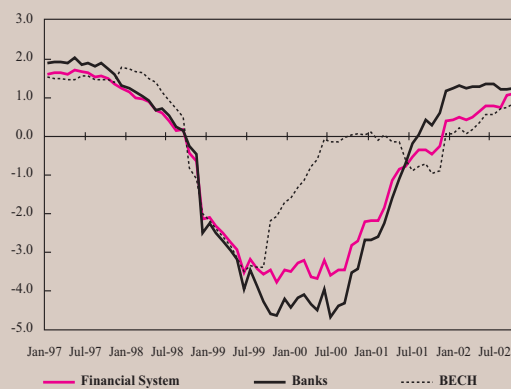
The present chapter offers a descriptive analysis of the position of the financial system during the first 10 months of 2002. Indicators are provided on its profitability, credit risk exposure, asset soundness, and the trend in its assets and liabilities. The possible impact of the new tax burden is also discussed. The information used is from the Banking Superintendent.

A. PROFITABILITY

The financial system as a whole began to show positive annualized profits in December 2001, after a losing streak of more than three consecutive years. A look at the profitability indicator (profits/average assets) shows that this recovery is largely the work of national banks. As Figure 63 illustrates, BECHs have been less profitable than commercial banks in 2002. Their average return during this period is 0.44%, as opposed to 1.27% for commercial banks and 0.70% for the system as a whole. The difference in profitability between BECHs and commercial banks is explained largely by problems with the quality of the mortgage portfolio as of 2000 (see the second part of this chapter).

On the other hand, a distinction between foreign and national institutions shows the former experienced a slump in annualized profitability during 2002, contrary to the trend in the rest of the system. In January 2002, foreign institutions were more profitable than national ones (0.51% against 0.40%, respectively). The situation reversed itself as of March and, by October, national institutions had surpassed foreign ones by 1.6 percentage points (1.41% as opposed to -0.21%).

FIGURE 63
RENTABILIDAD DEL ACTIVO:
RETURN ON ASSETS: ANNUALIZED PROFITS/
AVERAGE ASSETS
(PERCENTAGE)



Source: Banking Superintendent. Banco de la República calculations.

Much of the recovery in profitability of the system can be attributed to positive growth in the net financial earnings reported by commercial banks and BECHs since early 2001. In effect, Figure 64 illustrates a more than 10% increase in net financial earnings as of September 2001. A more detailed look at the source of financial earnings for the system as a whole (Figure 65) shows income from interest and commissions as the items that increased the most during the past year.

However, income from investments, which had been relatively stable with a monthly average of Col\$170 b between July 2001 and the same month in 2002, dropped sharply in August to -Col\$29 b. This was largely due to a reduction in TES prices during July and August (See Attachment 1). Yet, income from investments began to recover in September, registering Col\$99 b that month and Col\$245 b in October.

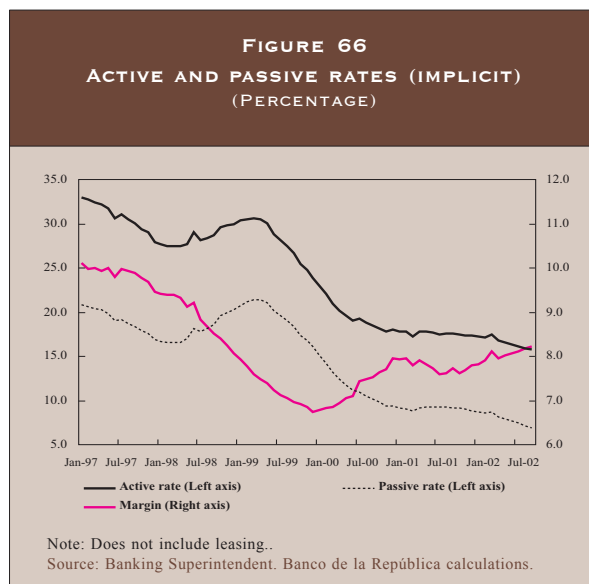
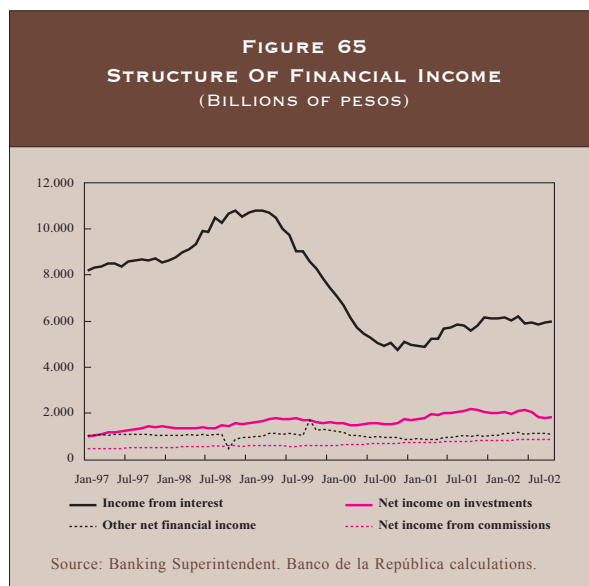
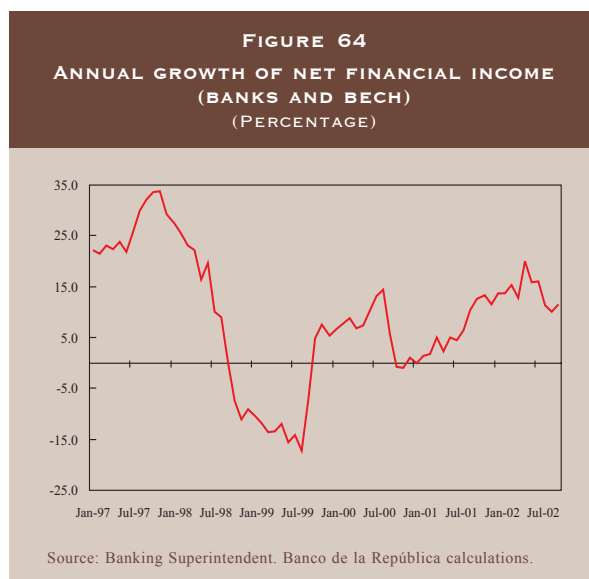
Another way to evaluate the profitability of financial institutions is to examine the intermediation margin. Implicit active and passive rates⁴⁷ were constructed to know the income per peso in the loan portfolio and the cost per peso borrowed. Figure 66 shows the implicit active and passive rates, and the margin between them. There is a clear reduction in income per peso on loan and in the cost per peso borrowed. This decline placed the lending rate at 15.7% and the borrowing rate at 6.9% in September 2002.

The margin intermediation declined steadily since 1997 to a minimum of 6.73% in December 1999. However, since that date there has been a recovery of the margin, which held until 2002. The margin rose from 7.6% to 8.2% between October 2001 and September 2002, reflecting an improvement in net income on financial intermediation.

B. CREDIT RISK EXPOSURE AND ASSET SOUNDNESS

Two types of indicators are examined to analyze exposure of the financial system to credit risk. The first is a portfolio-quality indicator constructed as the past-due or risk portion of the total gross portfolio. The second is a debt coverage indicator, which is the ratio of provisions to the past-due or risk portfolio.

⁴⁷ The A2 margin is the method used to calculate implicit rates and the intermediation margin. For an example, see Janna, M.; Loboguerrero, A.; López, A. and Muñoz, S. (2001). "Medición y evolución de los márgenes de intermediación financiera para el caso Colombiano, 1996-2001" in Banco de la República, "Borradores de Economía," No. 182.



A consolidated analysis of portfolio quality for the system as a whole shows a continuation of the clean-up efforts begun in 2000. The past-due portfolio declined by 2.2 percentage points between October 2000 and October 2002, allowing the indicator to stabilize at around 9.1%.

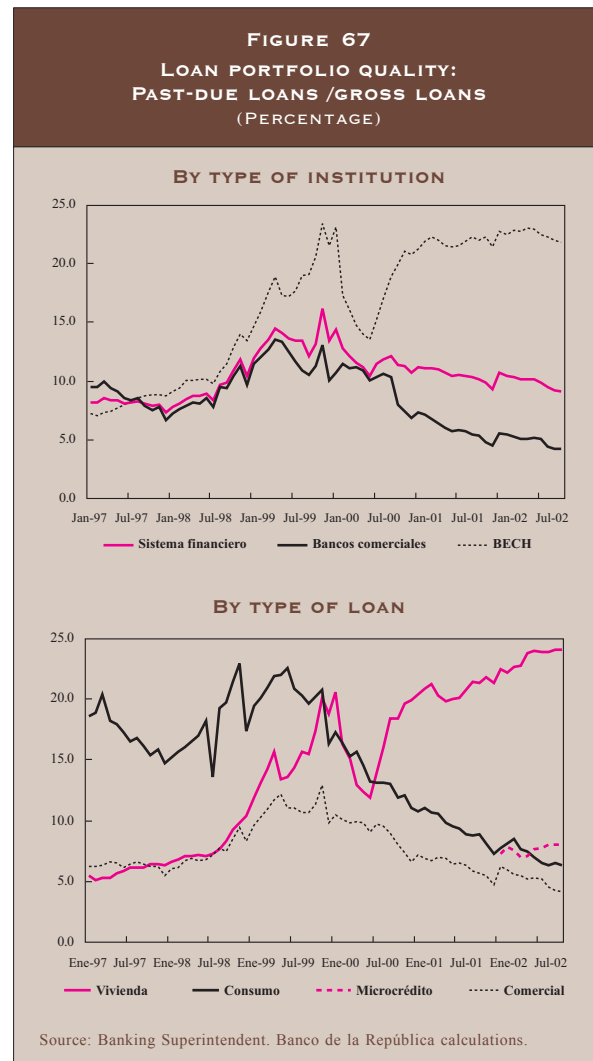
The quality of the BECH portfolio is still a cause for concern. While the past-due portion showed no increase during the first ten months of 2002, it remains excessively high (near 22%). This is clearly the result of problems with the quality of the mortgage portfolio, which is the main BECH asset. Figure 67 offers an illustration. However, the past-due portion of the portfolio has declined slowly as of May, reflecting an improvement in the growing trend during the beginning of the year.

Credit risk exposure for commercial banks continued to decline in 2002. In fact, commercial banks are at historically low levels in this respect, somewhere near 5% of the total loan portfolio.

With respect to the commercial loans, the past-due portion dropped from 6.3% to 4.2% during the course of 2002 to date, while the quality indicator for the consumer loans declined from 7.8% to 6.4% in the same period. These are low levels, considering problems with quality in the past.

AAs mentioned earlier, the quality of the mortgage portfolio is the least satisfactory, not only because of its high past-due portion but also because this portion continues to increase. Between October 2001 and October 2002, the quality of the mortgage portfolio deteriorated by 2.8% and the past-due portion was 24% by October of this year (Figure 67).

Microcredit, which is a new portfolio category established by the Banking Superintendent in 2002, was relatively stable between January and October. These loans started the year with 7.3% past due. By October, the past-due proportion was 8.1%.



In 2002, the Banking Superintendent established a new set of criteria for measuring and entering the past-due or risk portfolio on the books. These criteria do not hinge exclusively on the number of loans past due⁴⁸. The portfolio was rated by risk level in five different categories. Credit risk to the financial system declined between January and October (Figure 68), confirming what the past-due portfolio indicator

⁴⁸ Prior to External Circular 050 issued by the Banking Superintendent on October 2001, the only criterion for rating the portfolio was the number of months past due in the case of consumer credit and mortgages. With respect to the commercial loans, other additional criteria were included when determining the degree of risk for the institution. After the aforementioned date, it was decided that the total portfolio would be rated according to the credit risk management system (SARC) accredited for each institution. If there are objections to the SARC or it is not fully operable, months past due and other factors that can affect the level of risk for the institution are sufficient to rate the portfolio.

showed. Commercial banks and BECH followed a similar pattern, with respective reductions of 2.2% to 4.1% during the same period.

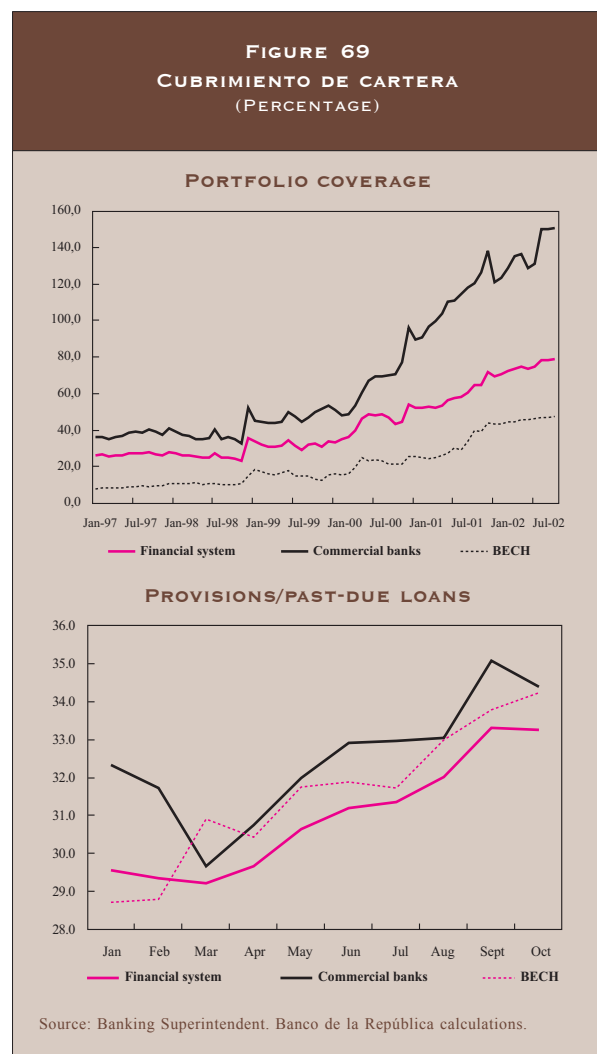
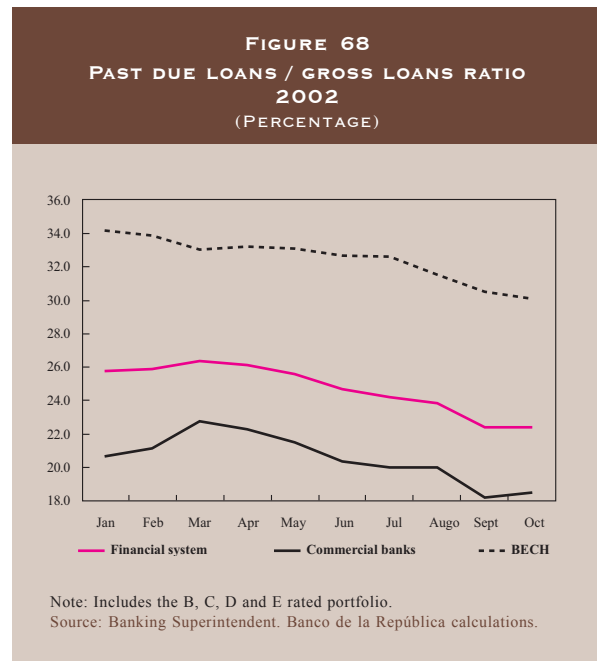
Once the quality of the portfolio has been determined, it is important to know how financial institutions have modified their coverage in response to credit risk. This necessitates analyzing the ratio of provisions to the past-due or risk portfolio. As Figure 69 illustrates, portfolio coverage improved between January and October 2002, when the provision ratio increased from 69% to 79% for the system as a whole. During the same period, the trend among commercial banks and BECH rose as well.

The risk provision indicator has also improved during 2002. It complements the indicator of provisions for past-due loans, since the concept of credit risk offers additional information on the extent of credit risk to the institution. Therefore, as Figure 69 confirms, although BECHs had less portfolio coverage than commercial banks throughout much of 2002, there is no major difference between these two types of institutions with respect to the level of coverage (as demonstrated by provisions for past-due loans).

An analysis of the solvency ratio (technical net worth divided by risk-weighted assets) is useful in examining the solvency of the financial system and in determining if its equity is consistent with its assets. The solvency ratio averaged 13.3% during the first seven months of 2002 (Figure 70). This is 4.3 points above the minimum stipulated by the Banking Superintendent.

C. TREND IN ASSETS, LIABILITIES AND OFF-BALANCE-SHEET TRANSACTIONS

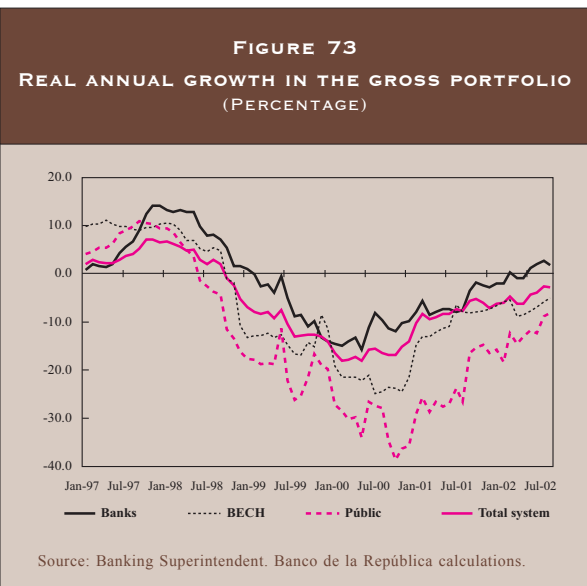
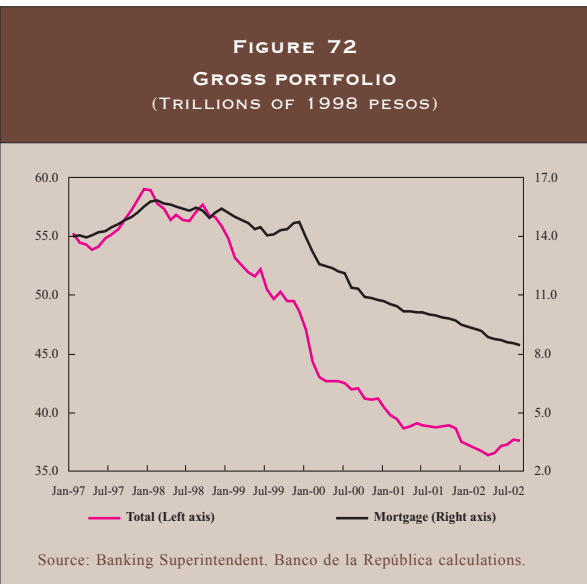
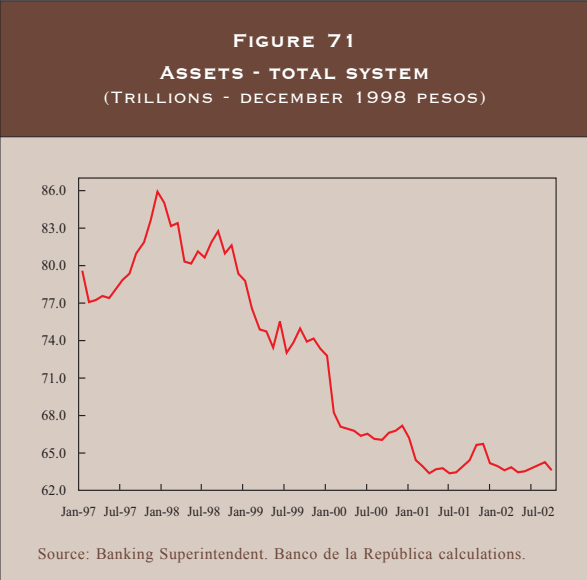
Several aggregate variables are analyzed in this section to understand the main trends in growth of the financial system. Indicators of assets, liabilities and derivative transactions are examined with this in mind.



Figures 71 and 72 show the trend in total assets and the gross loan portfolio of the system as a whole. Unlike the trend during the second half of 2001, the gross loan portfolio and assets behaved similarly during the first ten months of 2002. In effect, assets dropped slightly during the first five months of the year (from Col\$64.2 t in 1998 pesos in January to Col\$63.4 t in May) before increasing during the four months thereafter. The gross loan portfolio declined by Col\$1.2 t between January and May, but experienced a rebound of Col\$1.3 t between May and October. Nearly half the decline registered at the beginning of the year was due to a steady reduction in mortgage credit during that period (Col\$0.6t).

In real terms, credit growth rates per type of institution (Figure 73) remained negative for the system, even with the portfolio increase mentioned earlier. However, commercial banks experienced positive growth as of July 2002, registering real levels of 2% in October. This was the first time commercial banks had seen any real growth in their portfolio since January 1999.

The foregoing points to growth in the loan portfolio share of total assets in the financial system. It is important to remember the portfolio had lost weight as a share of total assets since the first quarter of 1999. Although the recovery is limited at best, it is the



first time since then that the trend has seen a marked change, with assets being redirected towards credit (Figure 74).

An analysis of investments by the financial system indicates stabilization at around Col\$17.4 t in 1998 pesos during the first half of 2002. There was even a slight surge in January 2002 (Figure 75). This pattern in the first six months is consistent with the investment trend since 1999.

As for liabilities, Figure 76 shows a relative standstill in deposit-taking by the system as a whole. In 2002, deposits declined from Col\$43.0 t in January to

Col\$42.9 t in October, implying virtually no real increase. However, a look at deposit growth rates by type of institution shows a different pattern. For example, deposits with commercial banks rose at an average annual rate of 6.4% between January and October, while those with foreign banks saw positive growth only as of September 2002. In the case of BECH, deposit growth remains negative (-4.4% in October).

After analyzing the trend in the system's assets and liabilities, it is important to determine the leverage of financial institutions. The ratio of assets to net worth has been relatively consistent (Figure 77), remaining at around Col\$ 9 in assets for every peso of net worth during the course of 2002 to date. This is slightly above the average registered in the second half of 2001 (Col\$8.8).

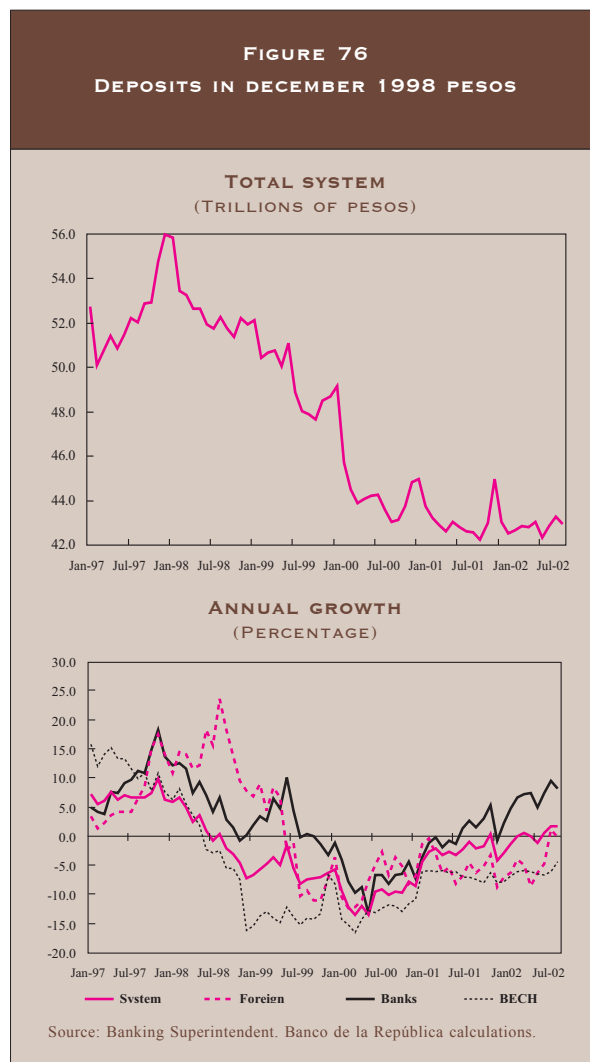
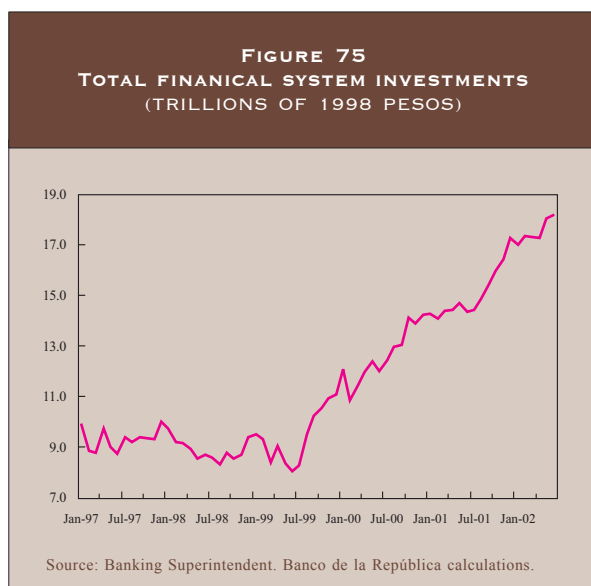
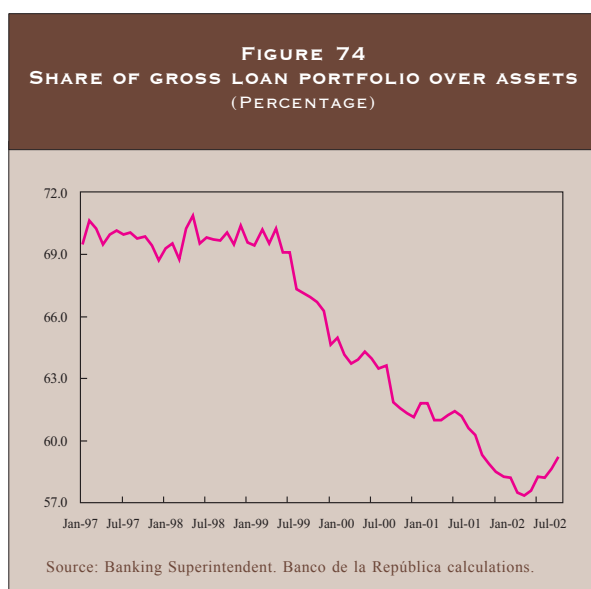


FIGURE 77
LEVERAGE: ASSETS/NET WORTH
 (PERCENTAGE)

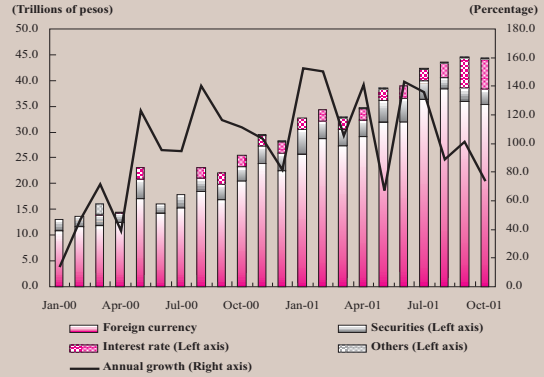


Source: Banking Superintendent. Banco de la República calculations.

In conclusion, given a small surge in assets due more to portfolio growth than to an increase in investments, net worth has responded similarly, making it possible to maintain a certain degree of leverage without major variations.

Lastly, it is important to examine the trend in derivative transactions of the financial system. This exercise is relevant insofar as it shows the extent of recent development in the financial market and how exposed finance companies are to risks not derived exclusively from the business of portfolio management. Figure 78 shows an ample increase in derivative transactions since early 2001. The annual growth rate, as of February 2001, is above 40% and was even as high as 153% in February 2002. Derivative transactions stood at Col\$44.2 t

FIGURE 78
DERIVATIVE TRANSACTIONS
 (PERCENTAGE)



Source: Banking Superintendent. Banco de la República calculations.

in October 2002, after totaling Col\$13 t in January 2001. This change denotes considerable momentum in the use of financial instruments of this type.

Most derivative transactions are associated with operations in foreign currency. These transactions accounted for nearly 83% (Col\$ 32.0 t) of the total, on average, since January. Derivative transactions involving securities and those related to interest rates have been less important (Col\$3.1 t and Col\$5.9 t, respectively, in October). While increased use of these instruments gives financial institutions more opportunities to diversify their sources of income, it also exposes them to new risks on the market, such as unexpected changes in the exchange rate, in the price of securities, or in interest rates.

BECH SENSITIVITY TO CHANGES IN THE INTEREST RATE

The mortgage banking business has a well-known history of considerable exposure to risks posed by liquidity and interest rates, given the major difference in its terms for borrowing and lending.

To analyze the vulnerability of this sector to any future change in interest rates, an exercise was developed to show how income and outlays for interest on a simplified BECH balance sheet would be affected by shocks in the DTF (reference interest rate).

The idea is to measure the additional cost (benefit) to be derived from changes in the DTF interest rate (one-time variations effective for one year). The assumption was that assets and liabilities tied directly to the DTF would generate additional income or outlays the moment this rate increases.

Assets and liabilities contracted at a fixed rate or at UVR (unit of constant value), plus a fixed margin, generate no additional income or outlays, unless their price is updated.

It was also assumed that, for each asset and liability not tied to the DTF, a fixed portion of the stock is updated in price every month. For example, if the average maturity of the consumer loan portfolio is 36 months, the assumption is that 1/36 of the portfolio matures every month and this same amount is lent at a new rate adjusted to the increase in the DTF. Therefore, one month after the shock, 1/36 of consumer credit will generate additional earnings from the increase in interest. By the second month, 2/36 of the total consumer portfolio will be contracted at a new and higher rate. By the third month, there will be 3/36, and so on.

The assets and liabilities used in this simulation are classified as follows and arranged according to the type of interest rate contracted. Respective maturity is also included and used to calculate the portion of the initial stock that is updated in price every month.

	Type of Interest	Maturity
Asset		
Commercial portfolio	Tied to the DTF	
Mortgage portfolio	Fixed	180 months
Consumer portfolio	Fixed	36 months
Microcredit portfolio	Fixed	15 months
Liabilities		
CD	Fixed	1, 3, 6 y 12 months
Savings account	Variable: The change is the same as the change in the DTF	

Note: The CD portion was estimated at different terms, according to information calculated by Banco de la República on the liquidity gap in the system.

Current accounts are not included under liabilities, as their yield is supposedly 0%. Also, their cost to the institution is not affected by changes in the DTF.

Four possible shocks to the August DTF were considered: 100 bp (basic points), 150 bp, 200 bp and 300 bp. The following would be their impact on BECH income.

ANNUAL LOSS FROM DTF INCREASES
(BILLIONS OF PESOS)

100 pb	150 pb	200 pb	300 pb
62.6	93.8	124.9	186.8

Considering an annualized profit of Col\$164.4 b in August of 2002, the BECH as a whole would be able to resist a shock of more than 200 bp in the DTF but less than 300 before suffering a loss.

However, the way each institution structures its terms and the fact that profits are not distributed equally among institutions makes some BECH more vulnerable than others. According to the simulation, under extreme conditions nearly 30% of these institutions would not resist a shock of 100 bp in the DTF without suffering a loss, while close to 50% could deal with shocks of up to 300 bp before showing negative results.

D. IMPACT OF NEW TAXES ON THE FINANCIAL SYSTEM

The new tax burden being levied by the national government, or the one it plans to include in the next tax reform, can have an important impact on the financial system. The effects of two specific elements are assessed in this section: namely, the tax on net worth and the plan to include Repos in the tax base for the levy on financial transactions (3/1000).

The tax to preserve democratic security is a one-time levy calculated as 1.2% of net worth. In the case of credit establishments, it is expected to generate Col\$114 b in revenue, which is equivalent to 19% of the profits of the system for the full year as of August 2002.

As to the tax reform bill, repos with the productive sector would be subject to the tax on financial transactions (3/1000). If passed, the bill could cost financial institutions in 12 months approximately one third of their annual profits. However, it is doubtful they will incur the cost, as this type of transaction is unlikely to prosper. For example, the interest rate for one day, plus tax, would be more than 100%. For 30 days, it would be almost twice what is now recognized.

E. CONCLUSIONS

The financial system is reporting positive annualized gains for the first time since the financial crisis erupted in late 1998. Return on assets is again positive, although has yet to equal 1996 and 1997 levels. This

recovery is more evident with domestic banks than foreign ones.

Earnings from interest and investments have been relatively stable throughout much of 2002. This fact, coupled with an improvement in the margin for financial intermediation compared with the 1999-2001 period, suggests the financial system is returning to its traditional levels of profitability.

After May 2002, the system also showed a slight recovery in its lending level. Although it is still too early to predict a major recovery in credit, this is the first time in nearly four years that institutions such as commercial banks have registered positive growth in extension of credit. This tendency is evident throughout the system. If it continues, the system as a whole might see positive rates in the months ahead.

In this case, recovery has been accompanied by slight reductions in credit risk to the system. The past-due portion of the total gross loan portfolio has declined slowly since August 2001. Here again, the trend in this indicator varies, depending on the type of institution in question. For example, the BECH clearly have a larger past-due portfolio than commercial banks, although their performance has improved in the last five years.

This persistence in credit risk has been accompanied by an improvement in portfolio coverage. The financial system has maintained good levels of solvency as well, confirming the trends observed as of the second half of 2001.

The BECH still face considerable exposure to risk from interest rates due to a major difference in the terms for their intermediation activity. Exposure was estimated by means of a simple exercise, according to which the BECH as a whole could resist a shock in the DTF of more than 200 bp but less than 300 before depleting their annual earnings as of August. Clearly, the outcome would not be the same for all institutions, given differences in the way their balances are structured with respect to maturity and the differences in earnings.

In addition to how sensitive the financial system is to changes in the public debt or the ability of the private corporate sector or households to pay their debts, the accelerated rise in derivative transactions during the last 18 months has substantially increased the system's exposure to other risks. While use of these instruments is a reflection of progress in the way the financial system has developed, it can also make the system more vulnerable to adverse conditions on markets other than the credit market, such as the foreign currency or bond markets.

The financial system is now far more exposed to the public debt than it was a decade ago. Commercial banks have the most exposure. An important fact to bear in mind is that state-owned banks use more of their assets for credit to the public sector than private banks. However, the latter's public debt stock is much larger than what state-owned commercial banks show on their books. The share of BECH assets represented by credit to the public sector has grown rapidly in recent years, making them vulnerable to the solvency of the non-financial public sector.

As mentioned in the July report, recent years have seen an increase in the risk the public sector poses to the financial system. Part of this risk materialized in July and August 2002 with liquidity problems on the secondary market for government bonds. As a result of these difficulties, some financial institutions incurred losses due to valuation of investments, but there were no financial instability or solvency problems for the public sector.

This underscores how important it is for the government to make the fiscal adjustments that are needed to reduce the public debt and to build public revenue, while increasing the confidence of the markets.

The territorial debt as a share of assets in the financial system experienced no change in the first half of 2002, even though its amount declined during the same period. The quality of the debt continued to recover, and the payment ability of the regions that are most in debt stabilized at 2000 levels. Valle del Cauca was

the only exception. Its debt to the financial system rose during the first six months of the year, even after the drop in its revenue during 2001. At present, the territorial debt poses less of a danger to the financial system than it did six months ago, but the risk is still significant.

As to exposure of the financial system to the household debt, there has been relative stability in the proportions of this debt compared with the total debt. There has been a slight reduction in holdings and some improvement in the quality of the household portfolio. Given the ambiguous data on consumer expectations, changes in wage income and unemployment rates, the trend of the future demand for credit is still uncertain. These are the more relevant developments concerning the non-corporate private debt during the course of 2002.

The financial sector's exposure to the private corporate debt has declined since 1998 and remained stable between March and June 2002. The leading debtors experienced a change for the better in terms of portfolio quality (although the levels are still below those observed in 1998) and there is less concentration. This trend is also evident when the debt is broken down according to economic sectors. Industrial manufacturing accounts for a large share and the construction sector continues to have the biggest problems with quality.

The corporate sector has improved considerably since 1999 in terms of both profitability and financial

pressure. However, indebtedness levels up to December 2001 were similar to those seen during the crisis in 1998 and 1999. This exposure is particularly strong for producers of non-tradables. They have yet to show solid indicators, given their large debt in foreign currency and because their financial outlays are extremely sensitive to interest and exchange rate shocks.

The financial sector may have been indirectly affected by the devaluation in the exchange rate during the third quarter of 2002, through a slump in company indicators during that period. As noted in the last Financial Stability Report, the productive sector's exposure to variations in the exchange rate was concentrated in the non-tradable sector, due to its high level of indebtedness in foreign currency, low sales growth and negative profitability since 1998.

A marginal increase in demand for credit from the financial system can be expected from the corporate sector. In principle, this should not generate much pressure on the financial system.

In short, the balance sheets of the financial system and those of its private clients have improved, although slowly. Nevertheless, both sectors remain exposed to shocks posed by macroeconomic variables. The greatest risks facing the financial system originate from outside forces, particularly its relations with the public sector and the external sector. For this reason, performance of the system depends largely on how these two sectors behave.

ANNEX 1

CONDITIONS IN THE SECONDARY MARKET FOR CLASS B TREASURY BONDS (TES B)

The period between July and September 2002 was a turbulent time in the secondary market for TES B. Interest on these bonds rose substantially and their volatility increased. The higher interest rates had an adverse effect on the price of these bonds, causing valuation losses for financial institutions. As of 1999, financial institutions had begun to destine a growing share of their assets to investments, particularly in government bonds. Investments in TES B, which represented only 4% of the assets in the financial system in 1996, accounted for 15% in December 2001 and 17% in December 2002. In other words, the last seven years have seen a substantial increase in exposure of the financial system to changes in the terms of the public debt. As indicated in another section of this report, both the extent of the public debt and its ratio to public revenue rose steadily during the period in question.

The price of government bonds rose with the drop in interest rates at the beginning of the year¹, as a prelude to the period of stress. This prompted an increase in the number of TES transactions on the secondary market, especially for long-term bonds. The government bond market was at a good point with respect to liquidity, and purchases of these securities were generating important revenue for their holders.

However, the country's risk exposure increased in July due to a variety of external and internal factors. The most relevant internal factors dealt with the new administration's announcement of problems

concerning the country's fiscal situation and sustainability of the public debt, and with the declaration of internal disturbance. The external factors dealt with the problems in Argentina, Brazil, Uruguay and Venezuela, which increased the perception of regional risk on the part of international markets, with repercussions for the perception of country risk.

The rise in country risk was reflected in several ways; namely, through increases in the spread on the external debt (Figure 1 A1) and accelerated devaluation of the exchange rate. Agents with Yankee bonds, who used them for repo transactions, began to see margin calls² which caused them liquidity problems. This meant more demand for US dollars to cover these obligations and placed added pressure on the exchange rate. The sustained rise in the exchange rate made investments in US dollar more attractive, relatively speaking, and service in pesos on debts denominated in US dollars more expensive. These two effects prompted many agents to simultaneously liquidate their TES positions in the secondary market, some in search of better yield from other investments and others because of liquidity problems. The increased supply of government bonds on the secondary market pushed up interest rates and leveraged the yield curve.

¹ This drop was particularly clear for the fixed rate TES B in pesos. The fixed rate on TES B 2012 went from 15.7% at the end of February to 12.7% at the end of June.

² When a broker finances the position of an asset (Yankee bond) with a bank loan in dollars, the creditor bank demands the asset be used as collateral security for the debt. When the spread increases, the value of dollar-denominated assets declines. This is why creditors make margin calls to their clients. In other words, they demand the client put up the difference in dollars between the initial value of the collateral and its value after the spread increases.

FIGURE 1A1
SPREAD YANKEES 2012 (*)
 (BASIS POINTS)



(*) This is the Yankee bond traded the most.
 Source: Banco de la República

The liquidity squeeze caused by agent rushing to liquidate their TES positions affected everyone in the market and jeopardized its stability. Brokerage firms and trust companies suffered the most, as they had financed expansion in their TES positions through lines of credit implicit in funding transactions with financial institutions. As interest rates increased, so did the risk for banks to continue financing these agents. Their lines of credit were trimmed as a result, causing them serious liquidity problems. With capital losses, agents saw their need for liquidity increase, because their clients were withdrawing funds. The only choice was to liquidate their positions in government bonds, entering their losses as valuation. This aggravated the upward pressure on interest rates, affecting other TES holders as a result.

The market finally stabilized in October, once the government demonstrated its commitment to stabilizing public finances and after international agencies promised financial support.

This brief period of stress spelled valuation losses for agents with government bonds, including financial institutions. In August, when the market was most volatile, companies with bonds registered Col\$182.7 b in losses and Col\$51.1 b³ in additional effects on the value of their equity. These losses take into account the portfolio where investments are classified, which is why not all are at market price.

An exercise to assess the TES B holdings of all sectors, at market prices, was done to calculate a scenario of possible losses during August, valued entirely at market prices⁴. It was based on the assumption that there was no variation in the stock of these bonds nor in their distribution among the sectors during these two months. Changes in valuation caused by changes in interest rates were the only factor taken into account⁵. According to the exercise, the total loss to the economy would have been Col\$ 956 b⁶, including Col\$223 b in losses to the financial system (2.7% of its technical equity in August 2002). Within the financial system, commercial banks would have suffered the most, with Col\$190 b in estimated losses (4.1% of their technical equity at August), followed by mortgage banks (BECH), which would have lost Col\$24 b (1.4% of their technical equity at August) (Table 1 A1).

Even though the risks the public debt implies for the financial system materialized due to the trend in interest rates, at those levels there were no serious instability problems for the system. This is because the losses that might have occurred represent 37% of the earnings accumulated during the first eight months of the year.

Although the situation on the secondary market for government bonds in the second half of the year

³ The loss on TES holdings came to Col\$145.4 b, plus an additional Col\$44.3 b due to the effect on the value of equity. The loss on Yankee holdings stood at Col\$37.3 b, plus an additional Col\$6.8 b due to the effect on equity.

⁴ These figures correspond to balances with TES B coupons at market prices. Zero coupon spot curves are used for appraisal at market prices, based on the Fisher-Nychka-Zevros method (1994) with a cubic Spline + penalty. The UVR curve with inflation added is used for the zero coupon spot curve of TES B peso bonds with a variable rate. For future inflation, the last available figure is used and inflation is assumed to be constant from thereon. The same assumption was made for the coupon rate on these bonds. Price elasticity with respect to the interest rate is given by the effective duration constructed on the basis of key rate durations, as described in Thomas, S.; Ho, Y. (1992). "Key Rate Durations: Measures of Interest Rate Risks" in *The Journal of Fixed Income*, September.

⁵ Earnings from devaluation and inflation were not taken into account.

⁶ However, according to the February balance, the economy saw Col\$969 b in valuation earnings during the period from February to June.

TABLE 1 A1
TES B VALUATION LOSSES BETWEEN AUGUST 2-30
(MILLIONS OF PESOS)

	Tes B Valuation Losses From Change In The <i>spot</i> Curve				
	Dóllars	FR Pesos	VR Pesos	UVR	Total
Financial Sector	7.091	(199.612)	(5.185)	(24.924)	(222.629)
Commercial Banks	6.552	(168.354)	(4.749)	(23.162)	(189.713)
Commercial Finance Companies	50	(1.035)	(10)	(34)	(1.030)
Cooperative sector-Top-rated financ.portfolio	34	(1.563)	0	0	(1.529)
Mortgage Banks	20	(22.663)	(340)	(861)	(23.844)
Finance Corporations	435	(5.996)	(85)	(866)	(6.512)
Rest of the Economy	29.375	(592.175)	(87.338)	(83.764)	(733.903)
Total	36.466	(791.787)	(92.523)	(108.688)	(956.532)

Source: Banco de la República. Depósito Central de Valores (DCV)

reversed the trend towards increased weight of investments as a share of the assets in the financial system, basically due to the valuation effect, the system's exposure to TES B remains substantial. Table 2 A1 shows the distribution of these bonds in the market and the duration of TES B portfolios, by holder, in August 30, 2002.

As illustrated in Table 2 A1, the financial system had Col\$7.7 t in TES B in August 30, 2002 or 17% of all such bonds on the market. The bulk of this sum (59%) was represented by fixed rate TES B in pesos, followed by UVR (28%), variable rate TES B in pesos (8%) and fixed rate TES B in dollars (5%). In other words, most government bonds in the financial system are sensitive to changes in nominal and real domestic interest rates. On the other hand, bonds exposed to the exchange rate and to the external nominal interest rate play a relatively small role.

After distributing the portfolio according to the different types of TES B, it is important to consider how sensitive these holdings are to changes in interest rates. The maturity on different types of securities in the financial sector is superior to the

weighted average maturity of the total debt represented by bonds. This means the financial sector is more sensitive to changes in interest rates than the average for the economy in this respect. Given a parallel change along the spot curve of 1% in the different interest rates, the value of TES B holdings in the financial sector would decline by 4.35% for variable rate pesos, 4.78% for UVRs, 2.22% for fixed rate pesos and 2.63% for fixed rate dollars. In contrast, the value of the portfolio for creditors as a whole would decline by 4.33%, 4.34% 1.99% and 2.36% respectively. The result would be Col\$242 b in losses for the financial system..

Therefore, the financial system is still highly exposed to government bonds. This year's short episode of stress in the secondary market for TES B brought about risks associated with its exposure to the public debt, even though the resulting losses were not enough to jeopardize its stability. Inasmuch as the stability of the financial system depends largely on the solvency of the public sector, the latter will have to adjust its spending to its earnings and its debt to its ability to pay.

TABLE 2 A1
TES B VALUATION LOSSES BETWEEN AUGUST 2 - 30
(MILLIONS OF PESOS)

	Balances in million of pesos valued at market prices				
	FR Dolars	FR Pesos	VR Pesos	UVR	Total
Financial Sector	373.588	4.552.030	601.397	2.198.237	7.725.252
Commercial Banks	323.615	4.006.876	493.653	2.110.696	6.934.839
Commercial Finance Companies	2.799	23.467	730	2.696	29.693
Coop. sector-Top-rated financ.portfolio	2.645	26.961	1.462	0	31.067
Mortgage Banks	0	303.060	81.885	23.000	407.945
Finance Corporations	44.529	191.666	23.668	61.844	321.707
Rest of the Economy	1.765.411	15.646.257	11.457.382	8.759.329	37.628.379
Total	2.138.999	20.198.287	12.058.779	10.957.566	45.353.630

	Weighted portfolio maturity			
	FR Dolars	FR Pesos	VR Pesos	UVR
Financial Sector	2.63	2.22	4.35	4.78
Commercial Banks	2.82	2.13	4.27	4.73
Commercial Finance Companies	5.25	3.26	4.79	3.96
Cooperative sector-Top-rated financ.portfolio	2.43	2.25	4.79	
Mortgage Banks		3.38	4.65	4.88
Finance Corporations	1.11	2.21	4.78	6.28
Rest of the Economy	2.30	1.93	4.33	4.23
Total	2.36	1.99	4.33	4.34

Fuente: Banco de la República, DCV.

ANEXX 2

PROTFOLIO CHANGES FOR COMPANIES IN THE RESCHEDULING PROCESS

Law 550/1999 provided for a system to help territorial agencies recover from a business standpoint and reschedule their liabilities through an agreement with creditors. This proposal came in response to fewer possibilities for loans to the productive sector (both private and public) and pressure exerted by borrowing in earlier years (in an environment of low demand coupled with high rates of interest and devaluation). These factors affected ability to pay and the generation of employment.

To date, 658 companies have taken advantage of this rescheduling agreement: 316 in the year 2000, 280 in 2001 and 62 by May 2002. This total includes 591 companies with asset-side commercial lending operations between 1995 and June 2002¹. For this last period, the sum of Col\$1.15 t in capital balances was reported to the Banking Superintendent, This is equivalent to 3.2% of the gross commercial loan portfolio of the financial sector.

The historical balance of liabilities to the financial system on the part of companies with rescheduled debts has declined in both level and share of the gross commercial loan portfolio (Figure 1 A2). This reduction has been less pronounced ever since companies began to take advantage of Law 550. Accordingly, the extent of borrowing and the share of the gross commercial loan portfolio have stabilized at around Col\$1.2 t and 3.4%, respectively.

¹ This takes into account only credit transactions of commercial banks, BECH, CFC, FC, top-ranked cooperatives and IOE. All the transactions found are of the commercial variety.

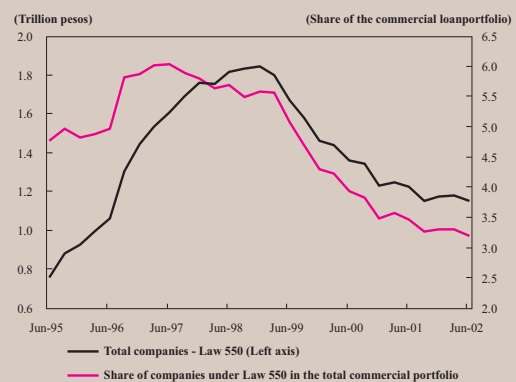
As Figure 2 A2 illustrates, under Law 550/1999, the portfolio of loans to public agencies and organizations has increased in share since 2001, accounting for 44% of the rescheduled portfolio in June 2002². This growth

FIGURE 1 A2
THE PORTFOLIO RESTRUCTURED UNDER LAW 550 AND ITS SHARE OF THE GROSS COMMERCIAL LOAN PORTFOLIO



Source: Banking Superintendent. Banco de la República calculations

FIGURE 2 A2
SHARE OF THE RESCHEDULED PORTFOLIO, BY TYPE OF DEBTOR (PERCENTAGE)



Source: Banking Superintendent. Banco de la República calculations.

was particularly intense during the past year, when the balance increased from Col\$397 b in June 2001 to Col\$ 502 b in June 2002.

The trend in portfolio quality for companies with rescheduled debts began to deteriorate in late 1998 and has shown no improvement since 2000 (Figure 3 A2)³. By June 2002, 48% of the portfolio in question was classified as D or E, while the class-A debt accounted for 15%. A breakdown by rescheduling year shows companies that rescheduled their debt in 2002 had the worst portfolio quality. The best quality was with companies that rescheduled in 2000, even though the D and E share is still extremely high (approximately 37% of the total), similar to the proportion in 2000. This deterioration applied to private companies as well as public institutions⁴.

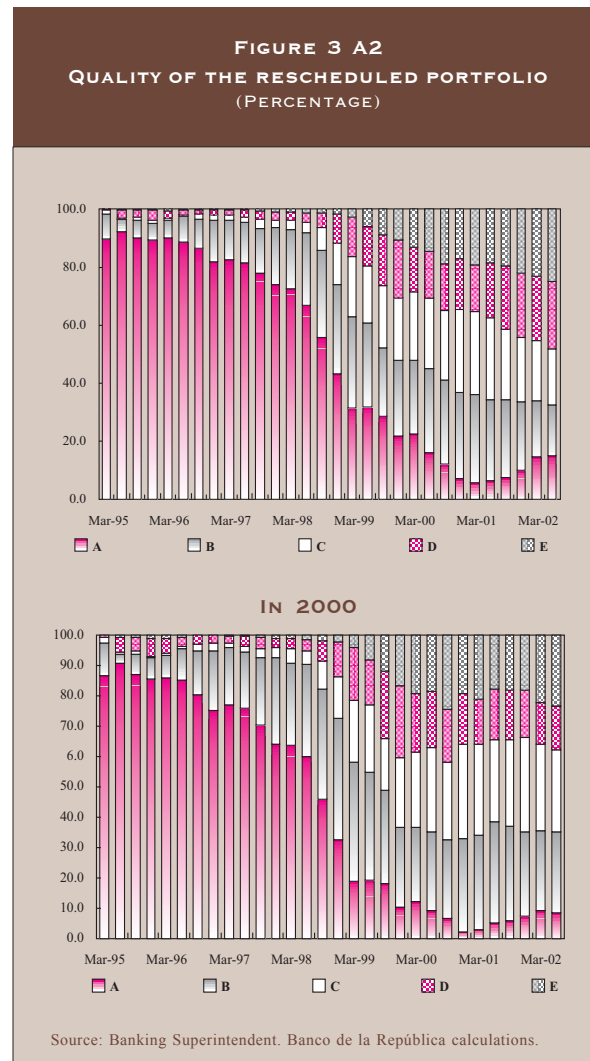
Commercial banks have increased their share since 2001 and, in June 2002, were creditors of approximately two thirds of all rescheduled loans. Following in order of importance were the financial corporations, with 24% of the rescheduled portfolio in June 2002, the CFC (5%) and the IOE (4%) (Figure 4 A2). This portfolio is concentrated in Banco Ganadero, Banco de Bogota, Bancolombia, IFI, Occidente and Corporacion Financiera Colombiana. Together, they accounted for 52% in June 2002.

However, the amount of debt rated D and E, in addition to the provisions and collateral for these loans, show there is little exposure to the deteriorated portfolios of companies taking advantage of Law 550.

² As noted herein with respect to the territorial debt of the Atlantico department, the level and growth of credit to the city of Barranquilla (11.5% of the total rescheduled portfolio in June 2002) stands out.

³ Available information does not show if payment is made on time. It only allows for analyzing the quality of credit.

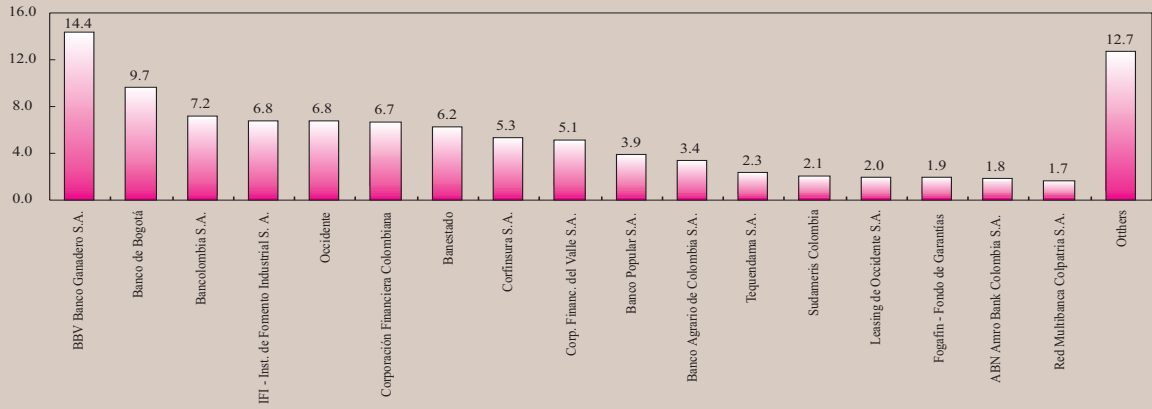
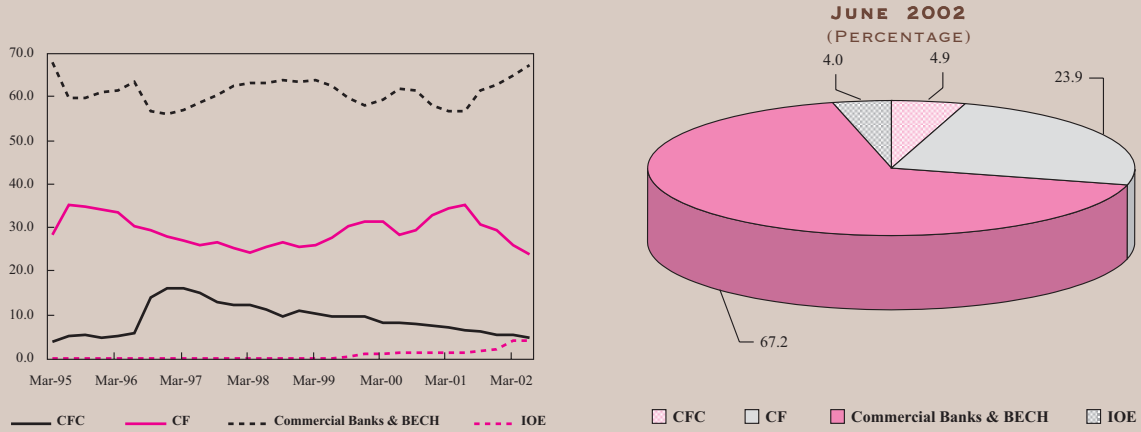
⁴ The increase in the A-rated share of the portfolio as of March was due entirely to the action taken by public agencies and organizations. However, this is not a definite sign of improvement in the quality of their portfolio, inasmuch as the percentage of the portfolio rated A is still quite limited and the class- B debt has lost some of its share.



Companies reporting a higher portion of class-D and class-E debt at June 2002 also list a good stock of provisions and collateral for these loans (Figure 5 A2). In June 2002, the five institutions with the most rescheduled loans registered coverage above 120% in June 2002. Only 15 of the 51 institutions with class-D and class-E portfolios in June 2001 reported provisions and collateral at levels below 100%. Similarly, the deteriorated portion of the portfolio represents a low share of technical net worth for most of the institutions that account for a high portion of the deteriorated debt (Figure 6 A2).

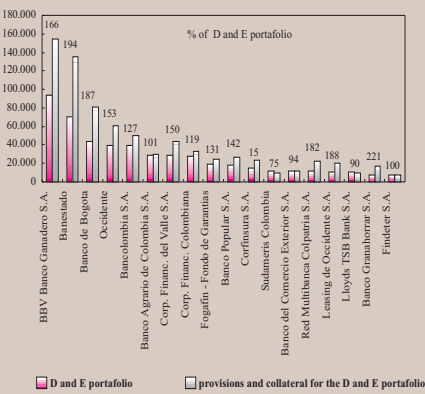
The portfolio of loans to companies that have rescheduled payment of their debt under Law 550/1999 accounts for a very small portion of the total commercial loan portfolio. The trend in this respect has been stable ever since these companies took

FIGURE 4 A2
SHARE OF THE RESCHEDULED PORTFOLIO, BY CREDITOR
 (PERCENTAGE)



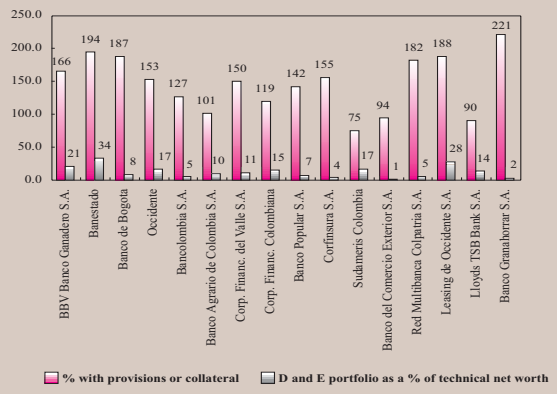
Source: Banking Superintendent. Banco de la República calculations..

FIGURE 5 A2
OUTSTANDING BALANCE, PROVISIONS AND COLLATERAL FOR THE RESCHEDULED D AND E PORTFOLIO, BY CREDITOR AGENCY
 (MILLIONS OF PESOS)



Source: Banking Superintendent. Banco de la República calculations.

FIGURE 6 A2
EXPOSURE TO THE RESCHEDULED D AND E PORTFOLIO, BY CREDITOR
 (PERCENTAGE)



Source: Banking Superintendent. Banco de la República calculations.

advantage of this legislation. During 2002, public agencies and institutions have increased their share as debtors, while commercial banks and BECH have broadened their participation as creditors. The quality of the portfolio of loans to companies with credit rescheduled under Law 550 has declined steadily since 2000. Rescheduling agreements have

not improved ratings on credit extended to companies that rescheduled in 2000, nor in 2001. However, the financial sector is not overly exposed to the rescheduled deteriorated debt, given the extent of provisions, collateral and technical net worth reported by financial companies in June 2002.

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