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**SUSTAINABILITY OF PUBLIC  
DEBT IN PAKISTAN**

**Hafiz A. Pasha**  
**And**  
**A.F. Aisha Ghaus**

## **SUSTAINABILITY OF PUBLIC DEBT IN PAKISTAN**

*Hafiz A. Pasha and A.F. Aisha Ghaus*

There is a growing recognition in Pakistan of the macroeconomic consequences of high levels of public debt resulting from the cumulative impact of large and growing budget deficits and the concomitant needs for borrowing. The heavy burden of debt servicing on the budget has frequently been highlighted by government, media and concerned citizens. In recent years, it has emerged as the biggest claimant of public resources, even more than defence expenditure and outlays on development. The resulting resource squeeze has implied a cut back in expenditures on social development, economic infrastructure, subsidies, etc.

In fact, there are concerns that the country is effectively caught in a 'debt trap' whereby a high existing level of outstanding debt implies a high level of interest payments which lead to a large budget deficit that has to be financed by correspondingly large borrowings which add to the debt and so on. The result is explosive growth in debt and budget deficits which creates fundamental macro economic imbalances and has a number of unfavourable consequences including the 'crowding out' of the private sector and a decline in private investment through rise in interest rates and/or a rise in the current account deficit in the balance of payments.

Budget deficits can be financed in four ways; (i) by printing money, (ii) running down foreign exchange reserves, (iii) borrowing abroad and (iv) borrowing domestically. Fischer and Easterly (1990) indicate that as a first approximation each form of financing is associated with a major macro economic imbalance. Money printing is associated with inflation; foreign reserve use with the onset of an exchange crisis; foreign borrowing with an external

debt crisis; and domestic borrowing with higher real interest rates and possibly explosive debt dynamics. In the case of high domestic borrowings also, the budget deficit eventually get monetised as people shy away from investing in government paper in the face of high levels of public debt. This creates strong inflationary pressures on the economy and the possibility of hyper inflation.

In this paper we identify the evolution of public debt and analyse factors contributing to its increase. Based on this analysis, we quantify targets for key macro economic variables to keep the public debt to GDP ratio at a sustainable level in Pakistan. The paper is organised as follows: section II presents estimates of public debt, both domestic and external. Section III analyses factors responsible for increases in external debt in relation to GDP. Section IV presents changes in public debt to GDP ratio and highlights the changing contribution of various factors over time while section V discusses factors contributing to change in domestic debt to GDP ratio. Section VI presents policy implications emanating from the analysis while section VII gives the summary and conclusions.

## **II. THE SIZE OF PUBLIC DEBT**

Public debt has two components — domestic debt and external debt. Estimates of domestic debt are prepared by the Finance Division, GOP and published annually in the Pakistan Economic Survey. Domestic debt is categorised into three types - permanent debt, floating debt and unfunded debt. Outstanding domestic debt figures from 1980-81 to 1994-95 are given in Table 1. In its latest Annual Report, the State Bank of Pakistan has also given its estimates of public debt. Domestic debt estimates correspond very closely to those of the

3 Finance Division. Minor differences are observed in earlier years due to exclusion by SBP of flow of funds into schemes like postal life insurance.

#### LEVEL OF PUBLIC DEBT OF PAKISTAN

	(Rs in Billion)			(as % ofGDP)		
	Domestic Debt*	External Debt**	Public Debt	Domestic Debt	External Debt	Public Debt
1980-81	62.5	101.4	163.9	22.5	36.4	58.9
1981-82	79.1	135.3	214.4	24.4	41.7	66.1
1982-83	101.7	155.2	256.9	27.9	42.6	70.5
1983-84	122.7	168.2	290.9	29.2	40.1	69.3
1984-85	149.9	203.9	353.8	31.7	43.2	74.9
1985-86	203.1	237.7	440.8	39.5	46.2	85.7
1986-87	248.5	274.9	523.4	43.4	48.0	91.4
1987-88	290.1	301.0	591.1	43.0	44.6	87.6
1988-89	333.2	373.0	706.2	43.3	48.5	91.8
1989-90	381.3	427.2	808.5	44.5	49.9	94.4
1990-91	448.2	527.6	975.8	42.9	50.5	93.4
1991-92	525.1	585.3	1110.4	42.9	47.8	90.7
1992-93	608.0	680.3	1288.3	45.0	50.3	95.3
1993-94	700.1	785.2***	1485.3	44.5	50.0	94.5
1994-95	805.0	831.5***	1636.5	42.9	44.3	87.3

\* Estimates of MOF/SBP  
 " Estimates of World Bank, available upto 1992-93  
 \*\*\* Increase corresponding to estimates of MOF/SBP  
 SOURCES:  
 • Pakistan Economic Survey  
 • Annual Report, SBP  
 • World Tables, World Bank.

Estimates of external debt which is outstanding are generated by the Economic Affairs Division, GOP. SBP has also published its estimates recently in the 1994-95 Annual Report and differ somewhat from those of the EAD, but are available only from 1985-86 onwards. According to the SBP, estimates of outstanding external debt include long term, medium term and short term debt. The World Bank also gives estimates of the outstanding level of external indebtedness of its member countries in the publication, World Tables. These estimates include all external obligations of both public and private debtors with maturity of

more than one year. It comprises both public and publicly guaranteed debt and non-guaranteed debt. These estimates diverge significantly from those of the Economic Affairs division or the State Bank of Pakistan. In 1987-88, the difference was at its peak with the World Bank estimates being higher by over 29 percent. In 1993-94, the absolute magnitude of the difference was over \$ 2.5 billion.

What explains the differences in external debt estimates? One likely explanation is the difference in coverage among these estimates, especially relating to the extent to which short term commercial debt is included in these estimates. The World Bank estimates do include a higher component of short/medium term debt of about \$ 1.2 billion. However, these estimates are larger even in the case of long term debt. Also, World Bank estimates include private debt, but this is very small in the case of Pakistan. We have chosen the World Bank estimates in preference to the SBP/EAD estimates because over the period, 1980-81 to 1994-95, the latter come closer to satisfying the basic accounting identity (in \$):

Increase in External Debt = Interest payments on external debt + non-interest current account deficit

External debt estimates, valued in rupees, are also given in Table 1.

According to table 1, the outstanding public debt stood at Rs 1637 billion at the end of the last financial year, equivalent to 87 percent of the GDP, with Rs 805 billion as domestic debt and Rs 832 billion as external debt. During the 90s, public debt has increased annually on average by about Rs 165 billion. A number of trends are revealed by the table as follows:

(i) External debt has grown less rapidly than domestic debt. In 1980-81, external debt was over 31 percent of the GDP and domestic debt, less than 23 percent. By 1994-95 the two types of debt had come close to each other.

(ii) The domestic debt to GDP ratio increased very rapidly during the decade of the 80s, especially upto 1986-87. From there onwards, the ratio has tended to remain, more or less, constant. The external debt to GDP ratio continued to increase throughout the decade of the 80s, albeit at a more moderate rate. The overall public debt to GDP ratio mirrors these trends. It increased rapidly from about 59 percent in 1980-81 to 94 percent by 1989-90. The growth has been largely arrested since then, with a significant decline last year of over 7 percentage points. This highlights some success in debt management in recent years.

We turn now to an analysis of the factors responsible for the change in debt to GDP ratios.

**III. CHANGES IN EXTERNAL DEBT TO GDP RATIO** In order to derive the expression for changes in the external debt/GDP ratio we designate the following:  $D'$  = outstanding external debt in US\$;  $e$  = exchange rate (rupees per US\$);  $NICAD$  = non interest current account balance (in rupees);  $y$  = GDP;  $p$  = domestic price index;  $p^{\wedge}$  = world price index,  $r$  = real interest rate on external debt;  $g$  = real GDP growth rate.

The external debt/GDP ratio is given by  $\frac{D^\epsilon \epsilon}{Y}$ . The change in this ratio can be derived as follows:

$$d\left(\frac{D^\epsilon \epsilon}{Y}\right) = \frac{\epsilon dD^\epsilon}{Y} + \frac{D^\epsilon \epsilon}{Y} \cdot \frac{d\epsilon}{\epsilon} - \frac{D^\epsilon \epsilon}{Y} \cdot \frac{dY}{Y} \quad [1]$$

Now

$$\frac{dD^\epsilon}{Y} = \frac{NICAD}{Y} + \frac{INT}{Y} \quad [2]$$

where  $INT$  = interest payments on external debt in US\$. We have

$$\frac{INT}{Y} = \frac{D^\epsilon \epsilon}{Y} \left[ r + \frac{dp_w}{P_w} \right] \quad [3]$$

and

$$\frac{dY}{Y} = \left[ g + \frac{dp}{P} \right] \quad [4]$$

Substituting (2), (3) and (4) into (1) we obtain

$$d\left(\frac{D^\epsilon \epsilon}{Y}\right) = \frac{NICAD}{Y} = \frac{D^\epsilon \epsilon}{Y} [r - g] + \frac{D^\epsilon \epsilon}{Y} \left[ \frac{d\epsilon}{\epsilon} + \frac{dp_w}{P_w} - \frac{dp}{P} \right] \quad [5]$$

Now the real effective exchange rate,  $\epsilon_r$ , can be defined as

$$\epsilon_r = \epsilon \cdot \frac{P_w}{P} \quad [6]$$

Therefore,

$$\frac{d\epsilon_r}{\epsilon_r} = \frac{d\epsilon}{\epsilon} + \frac{dp_w}{P_w} - \frac{dp}{P} \quad [7]$$

Substituting (7) into (5) we finally obtain

$$d\left(\frac{D^\epsilon \epsilon}{Y}\right) = \frac{NICAD}{Y} + \frac{D^\epsilon \epsilon}{Y} [r - g] + \frac{D^\epsilon \epsilon}{Y} \cdot \frac{d\epsilon_r}{\epsilon_r} \quad [8]$$

This is identical to the expression obtained by Sweder van Wijnbergen (1989).

7 Equation (8) reveals that the change in the external debt/GDP ratio is attributable to three

factors as follows:

- (i) the non-interest current account balance. The larger the deficit in the current account of the balance of payments, excluding interest payments, the greater the increase in external debt due to larger borrowings;
- (ii) the extent to which the real interest rate,  $r$ , on foreign debt exceeds the growth rate,  $g$ , of the economy;
- (iii) the rate of capital loss on external debt due to real exchange rate depreciation,

$d^{\wedge}$

Results of the application of the methodology in equation (8) are as follows:

- Between 1980-81 and 1994-95 the external debt/GDP ratio increased modestly by 7.8 percentage points as shown in table 2. Non interest current account deficits alone could have increased this magnitude by almost three times as much while capital losses on external debt, due to real exchange rate depreciation, made an even larger contribution. But the increase in the ratio was held back dramatically by the fact that throughout the period the real interest rate on external debt was substantially below the real growth rate of the economy. The access of Pakistan to concessionary financing from multilateral and bilateral agencies has been a major factor responsible for restricting the level of the external debt/GDP ratio. It is interesting to note that if the nominal interest rate on external debt had been higher by only one percentage point during the period then the ratio of external debt to GDP in 1994-95 would have stood at close to 60 percent instead of 50 percent, implying significantly higher level of foreign debt servicing.

TABLE 2 FACTORS CONTRIBUTING TO CHANGE IN EXTERNAL DEBT* TO GDP RATIO				
PERIOD	$\frac{NICAD}{Y}$	$\frac{\epsilon D_{\epsilon}}{Y} (r-g)$	$\frac{\epsilon D_{\epsilon}}{Y} \cdot \frac{d_{\epsilon r}}{\epsilon r}$	$\Delta \left[ \frac{\epsilon D_{\epsilon}}{Y} \right]$
<b>■ CUMULATIVE</b>				
1980-81 to 1989-90	13.0	-24.5	25.0	13.5
1989-90 to 1994-95	6.8	-10.9	-1.6	-5.7
1980-81 to 1994-95	19.8	-35.4	23.4	7.8
<b>■ ANNUAL AVERAGE</b>				
1980-81 to 1989-90	1.4	-2.7	2.8	1.5
1989-90 to 1994-95	1.4	-2.2	-0.3	-1.1
1980-81 to 1994-95	1.4	-2.5	1.7	0.6
* External debt estimates according to World Bank.				
<b>SOURCES:</b> Derived.				

- The pattern of change in the external debt/GDP ratio differs fundamentally between the decade of the 80s and the first half of the decade of the 90s. In the former period the cumulative increase in the ratio was 13.5 percentage points whereas in the latter period there was an overall fall of 5.7 percentage points. Why has there been greater success in curtailing the external debt burden in recent years despite the sharp fall in the real growth rate of the economy? The main reason for this is the difference in the rate of real exchange rate depreciation and not in the size of the non-interest current account deficits.

During the 80s Pakistan followed an aggressive exchange rate policy which actually led to increasing undervaluation of the rupee in terms of purchasing power parity, and the real exchange rate fall on average each year by as much as 2.8 percent. This implied major capital losses and rapid increases in the rupee value of external debt. During the 90s the rupee has moved, more or less, in line with changes in purchasing

power parity with only marginal changes in the real effective exchange rate.

Consequently, given, more or less, the same size of non-interest current account deficits and the differential between real interest rates and GDP growth there has been some fall in the external debt to GDP ratio during the 90s. It is likely, however, that due to the devaluation of the Pak rupee in November 1995 and the continued slide thereafter that the external debt/GDP ratio may jump up somewhat in 1995-96 by 3 to 4 percentage points.

Ahmed [1995] has analysed the pattern of change in the external debt/GDP ratio during the decade of the 70s, from 1972-73 onwards (after the massive devaluation). He concludes that during this period Pakistan experienced substantial non-interest current account deficits. By itself, this should have contributed significantly to raising the ratio. However, the ratio declined appreciably because the adverse implication of these deficits was more than offset by the contributions of a large negative real interest rate and GDP growth. The appreciation of the real exchange rate also contributed to a reduction in the external debt/GDP ratio.

**IV. CHANGES IN PUBLIC DEBT TO GDP RATIO** The expression for change in the public debt/GDP ratio can be derived in a similar manner to that for external debt. For this purpose we designate the following additional variables:  $D$  = total public debt,  $D^d$  = domestic debt,  $PBD$  = primary budget deficit,  $i$  = real interest rate on domestic debt.

We have that

$$D = D^d + D^e \epsilon$$

Therefore,

$$\begin{aligned} d\left(\frac{D}{Y}\right) + \frac{d(D^d + D^\epsilon \epsilon)}{Y} - \frac{D}{Y} \cdot \frac{dy}{Y} + \frac{D^\epsilon \epsilon}{Y} \cdot \frac{d\epsilon}{\epsilon} \\ = \frac{PBD}{Y} + \frac{TINT}{Y} - \frac{D}{Y} \cdot \frac{dy}{Y} + \frac{D^\epsilon \epsilon}{Y} \cdot \frac{d\epsilon}{\epsilon} \end{aligned}$$

where TINT = total interest payments on domestic and external debt in local currency.  
Now

$$\frac{TINT}{Y} = D^d \left( i + \frac{dp}{P} \right) + \frac{(D^\epsilon \epsilon)}{Y} \left[ r + \frac{dp_w}{P_w} \right] \quad [11]$$

Substituting (11) into (10) we obtain

$$d\left(\frac{D}{Y}\right) = \frac{PBD}{Y} + \frac{D^d}{Y} (i - g) + \frac{D^\epsilon \epsilon}{Y} (r - g) + \frac{D^\epsilon \epsilon}{Y} \left[ \frac{d\epsilon}{\epsilon} + \frac{dp_w}{P_w} - \frac{dp}{P} \right] \quad [12]$$

Substituting into (12) from (7) we have

$$d\left(\frac{D}{Y}\right) = \frac{PBD}{Y} + \frac{D^d}{Y} (i - g) + \frac{D^\epsilon \epsilon}{Y} (r - g) + \frac{D^\epsilon \epsilon}{Y} \cdot \frac{d\epsilon_r}{\epsilon_r} \quad [13]$$

According to (13) the change in the public debt to GDP ratio is caused by the following factors:

- (i) size of the primary budget deficit. The larger this deficit the greater the quantum of borrowing and, therefore, the bigger the increase in public debt;
- (ii) the extent to which the domestic real interest rate on public debt exceeds the real GDP growth rate;
- (iii) the extent to which the external real interest rate exceeds the real GDP growth rate;
- (iv) the rate of capital loss on external debt due to real exchange rate depreciation.

Equation (13) has also been applied to the data from 1980-81 to 1994-95. The primary budget deficit has been derived as a residual from the following accounting identity:

$$\begin{array}{l} \text{primary budget deficit} \\ = \text{total change in public debt} \\ = \text{total interest payments} \\ - \text{capital loss on external debt} \end{array} \quad [14]$$

Therefore, this notion of the primary budget deficit not only covers the difference between revenues and non-interest expenditures (recurring plus development) of the federal and provincial governments combined but also other non plan expenditures and expenditures of semi-autonomous corporations which are financed through government borrowings. Significant differences are observed between the reported and the estimated primary budget deficits. Appendix I discusses these differences. Also, as before, World Bank estimates of external debt are used.

Results of the analysis are presented in table 3. The major conclusions are as follows:

<b>TABLE 3</b>					
<b>FACTORS CONTRIBUTING TO CHANGE IN PUBLIC DEBT TO GDP RATIO</b>					
(%)					
Period	$\frac{PBD}{Y}$	$\left(\frac{Dd}{Y}\right)(i-g)$	$\left[\frac{\epsilon D_{\epsilon}}{Y}\right](r-g)$	$\left[\frac{\epsilon D_{\epsilon}}{Y}\right] \left[\frac{d\epsilon_r}{\epsilon_r}\right]$	$\Delta\left(\frac{D}{Y}\right)$
<b>■ CUMULATIVE</b>					
1980-81 to 1989-90	46.1	-11.1	-24.5	25.0	35.6
1989-90 to 1994-95	16.8	-11.4	-10.9	-1.6	-7.1
1980-81 to 1994-95	62.9	-22.5	-35.4	23.4	28.4
<b>■ ANNUAL AVERAGE</b>					
1980-81 to 1989-90	5.1	-1.2	-2.7	2.8	4.0
1989-90 to 1994-95	3.4	-2.3	-2.2	-0.3	-1.4
1980-81 to 1994-95	4.5	-1.6	-2.5	1.7	2.1
<b>SOURCES:</b> Derived					

- There was a big increase in the public debt to GDP ratio of over 28 percentage points between 1980-81 and 1994-95, with most of the increase in domestic debt. The major factor contributing to the rise in the debt was the cumulative effect of successive large primary budget deficits. This was alleviated by the large differential between real external and domestic interest rate and the real growth rate of the

12 economy. Capital losses on external debt due to real exchange rate depreciation also made a significant contribution.

- While the public debt to income ratio rose substantially by almost 36 percentage points during the decade of the 80s it actually declined by 8 percentage points in the first half of the decade of the 90s. The difference between the two periods in the nature of evolution of the ratio can be attributed, first, to decline in the size of the primary budget deficit in relation to the GDP in the latter period and, second, a lower rate of depreciation in the real exchange rate. The contrasting pattern of movement in the public debt to GDP ratio in the two periods highlights the importance of primary budget deficits and exchange rate changes in influencing the growth of public debt.

**V. CHANGE IN DOMESTIC DEBT TO GDP RATIO** The expression for change in the domestic debt to GDP ratio can be derived as difference between equation (13) and (8), as follows:

$$d\left(\frac{Dd}{Y}\right) = \frac{PBD}{Y} + \frac{Dd}{Y} (i - g) - \frac{NICAD}{Y}$$

Here again the change in the domestic debt to GDP ratio is caused by the following: (i) size of the primary budget deficits;

(ii) the extent to which the domestic real interest rate exceeds the real GDP growth rate; (iii) the size of the non-interest current account deficit. The greater  $i$  the greater JS

the quantum of external borrowing and the greater the extent of substitution between external and domestic borrowing.

13 Decomposition of the change in the domestic debt to GDP ratio is given in Table 4.

<b>TABLE 4</b>				
<b>FACTORS CONTRIBUTING TO CHANGE IN DOMESTIC DEBT TO GDP RATIO</b>				
(%)				
Period	$\frac{PBD}{Y}$	$\left(\frac{Dd}{Y}\right) (i - g)$	$-\frac{NICAD}{Y}$	$\frac{d (Dd)}{Y}$
<b>■ CUMULATIVE</b>				
1980-81 to 1989-90	46.1	-11.1	-13.0	22.0
1989-90 to 1994-95	16.8	-11.4	-6.8	-1.4
1980-81 to 1994-95	62.9	-22.5	-19.8	20.6
<b>■ ANNUAL AVERAGE</b>				
1980-81 to 1989-90	5.1	-1.2	-1.4	2.4
1989-90 to 1994-95	3.4	-2.3	-1.4	-0.3
1980-81 to 1994-95	4.5	-1.6	-1.4	1.5

As in the case of overall debt, there was a big increase in the domestic debt to GDP ratio of 22 percentage points during the decade of the 80s followed by a small decline of about 1 percentage point in the first half of the 90s. The difference between the two periods can again be attributed to a larger annual primary budget deficit (in relation to the GDP) in the first period and to significantly lower real interest rates in the second period due to higher rates of inflation.

Based on the above analysis of the factor responsible for changes in the total debt, external debt and domestic debt to GDP ratios we are now in a position to derive some policy implications.

## **VI. POLICY IMPLICATIONS**

At a minimum, the policy goal must be to keep the future public debt to income ratio constant. Otherwise, there is the danger that a rising ratio coupled with higher interest rates,

accompanying the process of financial sector liberalisation, implied interest payments on debt will become unsustainable. The key policy objective of fiscal management, must, therefore, be to keep the primary budget deficit at a level which prevents the public debt to income ratio from rising. Simultaneously, exchange rate policy will have to be motivated not only by the consideration of keeping current account deficits at a sustainable level but also by the need to limit capital losses on external debt which increase debt servicing obligations in rupee terms.

Based on the above considerations, we project a scenario which ensures that the public debt to GDP ratio does not rise beyond the present level. From (13) we have that

$$d\left(\frac{D}{Y}\right) = 0 \text{ if } \frac{PBD}{Y} = \frac{D^d}{Y} (i-g) - \frac{D^\epsilon \epsilon}{Y} (r-g) - \frac{D^\epsilon \epsilon}{Y} \cdot \frac{d\epsilon_r}{\epsilon_r} \quad [15]$$

The values of  $D^d/y$  and  $D^\epsilon \epsilon/y$  are taken at the levels in 1994-95.

Domestic interest rates have shown a rising tendency since 1991-92 due partly to the rise in the underlying rate of inflation and partly as a consequence of the financial sector reforms. These reforms are likely to lead eventually to real domestic interest rates in the 5 percent to 6 percent range. This is close to the long run GDP growth rate of the national economy. Therefore, the differential between real domestic interest rate and GDP growth rate is likely to be marginal.

Nominal interest rates on external debt are low currently at below 4 percent and may rise somewhat in the wake of greater international competition for concessionary financing and as the resort to commercial borrowing increases. Therefore, the nominal interest rate could

approach 5 percent, implying a real external interest rate of about 2 percent and a magnitude of  $(r-g)$  of about -3/2 percent.

Pakistan has followed a policy of keeping the real effective exchange rate, more or less, constant in recent years. We assume that this policy will continue in coming years. Therefore, the assumptions underlying the scenario are as follows:

$$i-g = 0, \tau-g = -3.5, \frac{d\epsilon_r}{\epsilon_r} = 0$$

This implies that the sustainable level of the primary budget deficit is as follows:

$$\frac{PBD}{Y} = -0.424(0) - 0.442(2-5.5) - 0.442(0)$$

That is  $\frac{PBD}{Y} = 1.547 \approx 1.5$

Therefore, under this scenario, if the primary budget deficit remains below 1.5 percent of the GDP annually then the public debt to GDP ratio is unlikely to rise significantly beyond its current level. However, this degree of structural adjustment in public finances may not be adequate if the intention is to keep the level of interest payments to GDP constant. These could rise in the presence of a constant public debt to GDP ratio if interest rates continue to increase. As such, it may be essential to target for a reduction in the public debt to GDP ratio which will require further curtailment in the size of the primary budget deficit. Also, it needs to be emphasised that we have taken a broader definition of the primary budget deficit, as per equation (14).

16 Changes in the external debt to GDP ratio will depend primarily on the size of the non interest current account deficit. If the objective here is also to keep the ratio constant then

$$d\left(\frac{\epsilon D \epsilon}{Y}\right) = 0 \quad \text{if} \quad \frac{NICAD}{Y} = -\frac{D(\epsilon)(r-g)}{Y} - \frac{D \epsilon}{Y} \cdot \frac{d\epsilon_r}{\epsilon_r}$$

If, assumed above,  $d\epsilon_r = 0$  then

$$\frac{NICAD}{Y} = -\frac{D \epsilon}{Y} (r - g)$$

The real interest rate on external debt is like to be near zero. Therefore, the sustainable non-interest account deficit which prevents the external debt to GDP ratio from rising is about 2 percent of GDP. This is clearly achievable as historically it has averaged at about 1.4 percent of the GDP. Therefore, the evolution of the external debt to GDP ratio will hinge more on the nature of the exchange rate policy adopted. If there is progressive undervaluation of the rupee in relation to purchasing power parity then there is the possibility that the ratio could rise in coming years.

Altogether it appears that if the primary budget deficit as a percentage of the GDP is restricted to below 1.5 percent and simultaneously the non interest current account deficit is contained to below 2 percent of the GDP then the overall public debt, external debt and domestic debt to GDP ratios are likely to remain constant and even fall. If the objective is to bring down the ratio of interest payments to the GDP in the presence of rising domestic interest rates (due to the financial sector reforms) then the targets for the two deficits will have to be pitched at even lower levels.

## **17 VII. SUMMARY AND CONCLUSION**

The paper analyses the evolution of public debt, factors contributing to its growth and its sustainable level in Pakistan. Currently, outstanding public debt is equivalent to 87 per cent of the GDP, with a slightly higher share of external debt. The growth rate of the latter is however much lower than that of domestic debt. The domestic debt to GDP ratio increased very rapidly during the decades of the 1980s, especially upto 1986-87. From there onwards, the ratio has tended to remain, more or less, constant. The external debt to GDP ratio continued to increase throughout the decade of the 80s, albeit at a more moderate rate. Consequently, the growth in debt appears to have been largely arrested with a decline in the last year.

Analysis shows that change in external debt/GDP ratio can be attributed to the increase in non-interest current account deficits and capital losses on external debt due to real exchange rate depreciation. However, access to concessionary financing from multi lateral and bilateral agencies has been a major factor responsible for restricting the level of external debt/GDP ratio. The pattern of change in the external debt/GDP ratio differs fundamentally between the decade of the 80s and the first half of the 90s. Unlike the 80s the ratio has fallen in the 90s largely because of the difference in the rate of real exchange rate depreciation during the two periods and not due to the difference in non-interest current account deficit.

There was a big increase in the public debt to GDP ratio of over 28 percentage points between 1980-81 to 1994-95, with most of the increase in domestic debt. The major factors contributing to the rise in the debt was the cumulative effect of successive large primary

budget deficits. This was alleviated by the large differential between real external and domestic interest rate and the real growth rate of the economy. Capital losses on external debt due to real exchange rate depreciation also made a significant contribution.

While the public debt to income ratio rose substantially during the 80s, it actually declined by 8 percentage points in the 90s. The difference in the two periods in the nature of evolution of the ratio can be attributed, first, to the decline in the size of the primary budget deficit in relation to the GDP in the latter period and second, a lower rate of depreciation in the real exchange rate.

At the minimum, the policy goal must be to keep the future public debt to income ratio constant otherwise there is the danger that a rising ratio coupled with higher interest rates will become unsustainable. The key policy objective of fiscal management must therefore be to keep the primary budget deficit at a level which ensures constancy, or preferably a decline, in the public debt to GDP ratio, which is likely to be below 1/2 per cent of the GDP. Simultaneously, exchange rate policy will have to be motivated not only by the considerations of keeping current account deficits at a sustainable level (which is below 2 per cent of the GDP) but also by the need to limit capital losses on external debt.

## REFERENCES

- Ahmed, S. (1994) "Macroeconomic Policies for Sustained Growth in Pakistan" Unpublished Paper.
- Barro, R.J. (1979) "On the Determination of The Public Debt," Journal of Political Economy, 87(5), Part 1.
- Buter, W.H. and Patel, V. (1992) "Debt, Deficits and Inflation: An Application to The Public Finance of India," Journal of Public Economics, 47(2).
- Easterly, W.J. and Fischer, S. (1990) "The Economics of the Government Budget Constraint," The World Bank Research Observer, Vol.5, No.2.
- Van Wijnbergen, S. (1989) "External Debt, Inflation and the Public Sector: Towards Fiscal Policy for Sustainable Growth," World Economic Review, Vol.3, No.3.

**APPENDIX I**  
**EXTENT OF DIVERGENCE BETWEEN**  
**DOMESTIC BORROWING AND INCREASE IN**  
**DOMESTIC DEBT**

For consistency of estimates of debt, it is essential that the figures of domestic borrowing to finance the budget deficit and the increase in domestic debt released by government should tally for any particular year. However, as shown in Table A-1, sometimes the increase in domestic debt figures are higher and sometimes lower. This highlights a basic discrepancy, which needs to be resolved by the Ministry of Finance.

It is of particular concern that the difference has tended to increase in the last two years to as much as Rs 39 billion in 1994-95. This highlights the possibility that estimates of the budget deficit may be somewhat understated.

<b>TABLE A-1</b>			
<b>EXTENT OF DIVERGENCE BETWEEN DOMESTIC BORROWING AND INCREASE IN DOMESTIC DEBT</b>			
	Domestic Borrowing (1)	Increase in Domestic Debt (2)	Difference (2)-(1)
1981-82	11.8	16.6	4.8
1982-83	20.5	22.6	2.1
1983-84	20.2	21.0	0.8
1984-85	31.6	27.2	-4.4
1985-86	33.8	53.2	19.4
1986-87	38.3	45.4	7.1
1987-88	38.3	41.6	-3.3
1988-89	44.9	43.1	4.4
1989-90	33.1	48.1	15.0
1990-91	67.1	66.9	-0.2
1991-92	71.9	76.9	5.0
1992-93	83.2	82.9	-0.3
1993-94	67.6	92.1	24.5
1994-95	66.2	105.1	38.9
[SOURCES:			
• Pakistan Economic Survey			
• Ministry of Finance			