# An Analysis of Budget Deficits, Debt Accumulation, and Debt Instability 

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#### Abstract

In Pakistan all the macro indicators have been adversely affected by the persistently high deficits and the strategy adopted to finance them in the last two decades. The excessive domestic borrowing at high rates to finance deficits without any attempts at domestic resource mobilisation and controlling of the deficits over extended periods absorbed all available domestic and external resources. The resulting debttrap led to increased external borrowings at high rates with short-term maturity. This, coupled with massive exchange rate depreciation throughout the last two decades, resulted in rapid debt accumulation. The recent fiscal space created in the wake of events of $9 / 11$, resulting in high reserves, follows considerable debt relief and availability of massive funds on very soft terms. However, the decline in budget deficit continues to occur at the expense of development expenditure, along with some increase in tax revenues. This trend in expenditure needs to be reversed if serious progress in debt reduction is the aim.


## I. INTRODUCTION

Appropriate management of the budget deficit is crucial for the stability of the economy and has been the major benchmark for the countries to join the Euro. Continued high deficits tend to aggravate other macro indicators like interest rates, savings, investment, growth, current account deficit, etc. Since 1987-88, when Pakistan's budget deficit increased sharply to 8.5 percent of GDP, there has been a serious discussion between Pakistan and the multilateral institutions. Whereas in the 1990s the deficit was reduced to the range of 6 to 7 percent of GDP, it has been brought down to around 5 percent in recent years.

High deficits in Pakistan have their origin in the complete neglect of domestic resource mobilisation. In the face of rising public expenditures, excessive domestic and external borrowings piled up the public debt. Furthermore, heavy reliance on non-inflationary but expensive non-bank borrowing, and the continued depreciation of the exchange rate, inflated the debt burden enormously. The growing deficits (the-revenue-minus-expenditure gap), coupled with low domestic resource

[^0]mobilisation, accentuated the savings-investment gap (S-I). The strategy of expensive but noninflationary borrowing from the non-bank and external sources to finance both the development and non-development expenditures not only increased the domestic debt tremendously, it mortgaged the export earnings, thus widening the export-import gap (X-M).

A significant aspect of the debt burden in Pakistan has been the policy of domestic borrowing at very high rates of returns. Since the Government wanted to avoid inflationary tendencies, it focused, especially in the 1980s, on the non-bank borrowing. The resulting increase in interest payments on domestic debt exceeded the interest payments on the external debt, which in turn accentuated the budget deficit.

The objectives of this paper are: to test for the contribution of the various factors to the acceleration of debt burden over two decades (1980s and 1990s); and to trace the factors responsible for the high budget deficits and the resulting debt accumulation with respect to the trends in the three gaps. The paper also focuses on the changing composition of the domestic and external debt with reference to the availability of financing as well as relative interest costs.

The paper is structured as follows: Section II presents an overview of the impact of budget deficits by different schools of thought. In Section III we look at the trends in the debt burden of Pakistan-both domestic and external over time, to assess the impact of interest rate-growth differential, the exchange rate depreciation effect, and the effect of budget deficits. Factors responsible for the accumulation of public debt with respect to the three gaps are discussed in Section IV. Section V is about the factors responsible for the changing composition of public debt; and finally, Section VI concludes the paper with some policy recommendations.

## II. IMPACTS OF FISCAL DEFICIT: AN OVERVIEW

In economic literature fiscal deficits have been regarded as good, bad, and irrelevant. The Keynesians maintain that a reduction in taxes or an increase in public expenditure would stimulate aggregate demand. If there is excess capacity and unemployment, this would lead to higher income and output, and also have a positive effect on savings and investment. However, this argument is valid only if unemployment and excess capacity is due to demand limitations only. The Ricardians hold that fiscal deficits can be substituted for taxes without any impact on aggregate demand. The households save more to pay higher future taxes if the government reduces current taxes without reducing current expenditure; national savings are independent of taxation. The Ricardian paradigm is not very relevant in the case of a developing country like Pakistan because of its other equally stringent assumptions such as the existence of perfect capital markets, non-distortionary tax systems, fully rational and foresighted consumers, etc.

The neoclassicals maintain that substitution of fiscal deficit for taxation leads to an expansion of aggregated demand. Consequently, the desired private savings rise by less than the tax cuts, and hence the national savings decline. It requires an increase in real interest rate to equate desired savings and desired investment. However, the high interest rates crowd out private sector, resulting in lower investment in the long run. This, is turn, leads to higher deficits, requiring borrowing from abroad, which leads to current account deficits. The current account
deficit in the long run shows up as low stock of national wealth, and higher claims by foreignersthe debt burden.

The continuous rise in deficits, the consequent rise in public debt, and the decline in investment coupled with the widening trade gap over an extended period, suggest that the impact of Pakistan's fiscal deficits may be close to the neoclassical paradigm. Furthermore, these also suggest that countries with high deficits may be facing three (not two) gaps: the S-I gap, the X-M gap, and the R-E gap.

## III. DEBT BURDEN AND TRENDS IN COMPONENTS OF DEBT

Persistent deficits financed through borrowings pile up the national debt. It will be seen from Table 1 that Pakistan's public debt increased from Rs 144.9 billion in 1980-81 to Rs 709 billion in 1989-90, and stood at Rs 3478.6 billion in 2002-03.

While both the external and domestic debt have been rising, the latter has risen much faster; the foreign debt increased from Rs 86.7 billion in 1980-81 to Rs 324 billion in 1989-90, and to Rs 1666.4 billion in 2002-03. Domestic debt increased from Rs 58 billion to Rs 381 billion and amounted to Rs 1812 billion over the three time-periods. External debt as a percent of total debt declined over time from 60 percent in 1980-81 to 48 percent in 2002-03, while domestic debt increased from 40 percent to 52 percent over the same period.

Macro variables affecting the change in the stock of public debt include the interest rates, the exchange rates, budget deficits, and GDP growth. The impact of these factors on the growth of public debt in Pakistan over the two decades is assessed with respect to the interest rate-growth differential, the exchange rate changes, and the primary budget deficit. The debt ratio rises when the real interest rate exceeds the real GDP growth, when the exchange rate depreciates, and when the primary budget is balanced or in deficit. The debt dynamics equations for these three indicators are derived as follows: ${ }^{1}$

[^1]Table 1
Trends in Domestic and Foreign Public Debt

| Year | Rs Billion |  |  | Percentage Share in Total Debt |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic Debt | Foreign Debt | Total Debt | Domestic | Foreign |
| 1980-81 | 58.1 | 86.7 | 144.9 | 40.10 | 59.90 |
| 1981-82 | 81.3 | 87.2 | 168.5 | 48.27 | 51.73 |
| 1982-83 | 104.2 | 118.3 | 222.6 | 46.82 | 53.18 |
| 1983-84 | 124.2 | 127.6 | 252.5 | 48.50 | 51.50 |
| 1984-85 | 153.0 | 147.4 | 300.5 | 50.93 | 49.07 |
| 1985-86 | 203.1 | 179.2 | 382.4 | 53.12 | 46.88 |
| 1986-87 | 248.5 | 206.4 | 454.9 | 54.62 | 45.38 |
| 1987-88 | 290.1 | 227.3 | 517.5 | 56.06 | 43.94 |
| 1988-89 | 333.2 | 272.3 | 605.9 | 54.99 | 45.01 |
| 1989-90 | 381.3 | 323.6 | 704.9 | 54.09 | 45.91 |
| 1990-91 | 448.2 | 346.9 | 795.0 | 56.37 | 43.63 |
| 1991-92 | 531.5 | 431.8 | 963.3 | 55.18 | 44.82 |
| 1992-93 | 615.3 | 494.8 | 111.0 | 55.43 | 44.57 |
| 1993-94 | 711.0 | 612.9 | 132.9 | 53.71 | 46.29 |
| 1994-95 | 807.7 | 683.1 | 149.1 | 54.17 | 45.83 |
| 1995-96 | 920.3 | 748.3 | 1668.1 | 55.15 | 44.85 |
| 1996-97 | 1056.1 | 878.1 | 1934.1 | 54.60 | 45.40 |
| 1997-98 | 1199.7 | 986.9 | 2186.5 | 54.87 | 45.13 |
| 1998-99 | 1452.3 | 1272.4 | 2724.7 | 53.31 | 46.69 |
| 1999-00 | 1641.3 | 1312.8 | 2955.0 | 55.56 | 44.44 |
| 2000-01 | 1788.2 | 1496.4 | 3292.6 | 54.64 | 45.36 |
| 2001-02 | 1757.6 | 1671.7 | 3429.3 | 51.26 | 48.73 |
| 2002-03 | 1812.2 | 1666.4 | 3478.6 | 52.08 | 47.89 |

Source: Pakistan Economic Survey (Various Issues).

The stock of public debt at time $t$ is given by:
$B_{t}=(1+r) B_{t-1}-P D=(1+r)\left[B_{D t-1}+E_{t B S t-1}\right]-P D_{t}$
Where
$B_{t}=$ Public debt at time $t$ in domestic currency.
$B_{D t}=$ Domestic public debt at time $t$ in domestic currency.
$B_{E \Phi, t}=$ External public debt at time $t$ in U.S. dollars.
$E_{t}=$ Exchange rate at time $t$, domestic currency per U.S. dollars.
$r=$ Average nominal interest rate on public debt.
$P D_{t}=$ Primary deficit at time $t$.

Scaling by nominal GDP $\left(Y_{t}\right)$, and letting lower-case letters denote share of GDP yields

$$
\begin{equation*}
b_{t}=\frac{(1+r)}{(1+g)}\left[b_{D, t-1}+\left(1+\eta_{t}\right) b_{E, t-1}\right]-p d_{t} \quad \ldots \quad \ldots \quad \ldots \tag{2}
\end{equation*}
$$

where

$$
\begin{aligned}
g & =\text { Nominal GDP growth } \\
\eta_{t} & =\frac{E_{t}}{E_{t-1}}-1
\end{aligned}
$$

Using the share of external debt in total public debt (denoted by $\alpha_{t}$ ), Equation 2 can be rewritten as:

$$
\begin{array}{r}
b_{t}= \\
\frac{1+r}{(1+g)}\left[\left(1-\alpha_{t-1}\right)+\left(1+\eta_{t}\right) \alpha_{t-1}\right] b_{t-1}-p d_{t}=\frac{(1+r)}{(1+g)}  \tag{3}\\
\\
{\left[1+\eta_{t} \alpha_{t-1}\right] b_{t-1}-p d_{t} \quad \ldots}
\end{array} \ldots . \quad \ldots \quad \ldots ?
$$

Subtracting $b_{t-1}$ from both sides and collecting terms finally yields:

$$
\begin{equation*}
\Delta b=\frac{(r-g)+\eta_{t} \alpha_{t-1}(1+r)}{(1+g)} b_{t-1}-p d_{t} \quad \ldots \quad \ldots \tag{4}
\end{equation*}
$$

This allows us to decompose the change in public debt as a percentage (share) of GDP into:
Interest rate-growth differential: $\frac{(r-g)}{(1+g)} b_{t-1}$ the debt ratio rises when the real $\begin{aligned} & \text { interest rate exceeds real GDP, }\end{aligned}$

$$
\text { Exchange rate effect: } \frac{\eta_{t} \alpha_{t-1}(1+r)}{(1+g)} b_{t-1}, \begin{aligned}
& \text { the debt ratio rises as } \\
& \text { exchange rate depreciates, }
\end{aligned}
$$

Primary budget deficit effect: $-p d_{t}$, the debt ratio increases when the primary budget is balanced or is in deficit.

However, $\Delta b$ may also generate residuals the effect of which may be positive or negative. Estimates of these four effects of $\Delta b$ are reported in Table 2. While Section 2a of the table gives estimates based on nominal interest rates and output, Section $2 b$ of the table uses real interest and output growth. However, the outcome on the four effects does not differ very significantly.

The interest rate-growth differential would push the $\Delta b$ ratio up if real interest rate exceeded the real output. However, this effect is negative throughout the two decades whether nominal or real interest rates and output are used. The primary

Table 2
Trends in Factors Affecting the Debt/GDP Ratios

| Year | 2a |  |  |  |  | 2b |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\Delta \mathrm{b}$ | Foreign Exchange Effect | Primary <br> Budget <br> Deficit | Nominal Interest <br> -Nominal Growth <br> Differencies | Residual | $\Delta \mathrm{b}$ | Foreign Exchange Effect | Primary <br> Budget <br> Deficit | Nominal Interest <br> -Nominal Growth <br> Differencies | Residual |
| 1980-81 |  |  | 3.13 |  |  |  |  | 3.13 |  |  |
| 1981-82 | -0.002 |  | 2.93 | -2.95 | 0.011 | -0.003 |  | 2.93 | -5.60 | 2.658 |
| 1982-83 | 0.216 | 0.186 | 3.98 | -5.67 | 1.716 | 0.228 | 0.196 | 3.98 | -3.43 | -0.526 |
| 1983-84 | 0.043 | 0.045 | 2.62 | -2.35 | -0.277 | 0.040 | 0.043 | 2.62 | -5.41 | 2.785 |
| 1984-85 | 0.079 | 0.076 | 4.29 | -2.84 | -1.449 | 0.077 | 0.074 | 4.29 | -3.99 | -0.291 |
| 1985-86 | 0.043 | 0.038 | 4.26 | -2.40 | -1.852 | 0.043 | 0.038 | 4.26 | -2.32 | -1.932 |
| 1986-87 | 0.039 | 0.037 | 3.97 | -3.54 | -0.435 | 0.038 | 0.037 | 3.97 | -4.18 | 0.209 |
| 1987-88 | 0.010 | 0.012 | 3.60 | -7.57 | 3.966 | 0.010 | 0.012 | 3.60 | -8.07 | 4.465 |
| 1988-89 | 0.040 | 0.039 | 2.44 | -2.21 | $-0.228$ | 0.038 | 0.038 | 2.44 | -5.27 | 2.832 |
| 1989-90 | 0.051 | 0.049 | 1.09 | 1.50 | -2.594 | 0.047 | 0.046 | 1.09 | -2.88 | 1.781 |
| 1990-91 | 0.014 | 0.015 | 3.85 | -6.93 | 3.081 | 0.013 | 0.015 | 3.85 | -8.97 | 5.121 |
| 1991-92 | 0.028 | 0.028 | 2.29 | -5.90 | 3.614 | 0.027 | 0.028 | 2.29 | -7.61 | 5.323 |
| 1992-93 | 0.011 | 0.011 | 2.15 | -4.70 | 2.544 | 0.012 | 0.012 | 2.15 | -2.59 | 0.439 |
| 1993-94 | 0.035 | 0.035 | 0.08 | -7.28 | 7.193 | 0.035 | 0.035 | 0.08 | -7.20 | 7.116 |
| 1994-95 | 0.004 | 0.004 | 0.43 | -8.80 | 8.366 | 0.004 | 0.004 | 0.43 | -8.89 | 8.453 |
| 1995-96 | 0.014 | 0.014 | 0.25 | -6.14 | 5.892 | 0.014 | 0.014 | 0.25 | -4.66 | 4.406 |
| 1996-97 | 0.024 | 0.023 | -0.19 | 0.00 | 0.188 | 0.022 | 0.022 | -0.19 | -4.49 | 4.678 |
| 1997-98 | 0.015 | 0.015 | 0.10 | 0.00 | -0.098 | 0.015 | 0.015 | 0.10 | -0.19 | 0.096 |
| 1998-99 | 0.012 | 0.011 | -1.39 | 0.79 | 0.609 | 0.011 | 0.010 | -1.39 | -1.29 | 2.686 |
| 1999-00 | 0.015 | 0.014 | -1.60 | 0.87 | 0.731 | 0.015 | 0.014 | -1.60 | 1.59 | 0.013 |
| 2000-01 | 0.016 | 0.015 | -1.78 | -2.66 | 4.438 | 0.016 | 0.015 | -1.78 | -1.53 | 3.306 |
| 2001-02 | 0.006 | 0.006 | -1.70 | 0.92 | 0.778 | 0.006 | 0.006 | -1.70 | -0.01 | 1.702 |
| 2002-03 | -0.004 | -0.005 | -0.65 | -3.18 | 3.829 | -0.004 | -0.005 | -0.65 | -3.18 | 3.829 |

budget deficit is an important factor affecting the budget deficits because government consumption exceeds government revenues for almost all the periods except for very early 1980s. Since primary budget is in deficit between 1980-81 and 1995-96, it leads to higher $\Delta b$. In the remaining period it is in surplus except for 1997-98, and hence has a dampening effect. The foreign exchange effect is the strongest effect pulling up the debt ratio. In fact it equals the $\Delta b$ for a number of years, (1988-99, 1992-93 to 1997-98, and 2001-02), and even exceeds the debt ratio in some cases. In case of the residual effect, we do not know for certain what these residuals are, but it appears from Table 2 that the positive savings of the government and the remittances may be exerting a negative effect on the debt ratio in the early Eighties. However, for the remaining period they bear a positive sign. In Table 2b, however, the negative effect of residuals on the debt ratio extends from 1983-84 to 1989-90, excluding 1987-88, and again in 1995-96 they bear a negative sign. This may be due to some privatisation proceeds accruing from the sale of shares of the Pakistan International Airlines in the late Eighties. However, the positive effect is considerably higher in the 1990s to 2002 period than the negative effect of the 1980s. Since the exchange rate depreciation in the later period has been quite rapid and significant, the positive effects of the residuals may be attributed to the exchange rate effect.

The impact of changes in exchange rates on the growth of debt are also analysed in Table 3 by comparing foreign debt in rupee terms at the annual prevailing exchange rates, and at the constant rate of 1980-81. Foreign debt at the prevailing exchange rates increased from 29 percent of GNP in 1980-81 to 48 percent in 2000-01. When calculated at the constant rate of Rs $9.9 / \$$, it would actually have declined to 15 percent in 1989-90. Beyond 1995-96, it would be in single digit, and was 7.5 percent of GNP in 2000-01. In the 1990s the foreign debt at the prevailing exchange rates is twice the size of the debt at constant rates during the period from 1989-90 to 1995-96; three times in the following two years; and greater than five times in the last five years. The gap continues to widen, and in the last three years the debt at prevailing exchange rates is more than five times the debt at constant exchange rate.

However, this fixed exchange rate scenario is not very plausible since after 1981-82 no debt was contracted at the same exchange rate. Similarly, all the cumulative debt over the year was not contracted at the new exchange rate. Therefore, we estimate the impact of exchange rate on debt by adjusting the foreign debt only for the difference in the previous and current cumulative debt as shown in Column 5 of Table 4. This difference is multiplied with the prevailing exchange rate at which the new loan is actually contracted in a particular year and added to the previous year's total as shown in Table 4, Column 6.

Table 3
The Impact of Changes in Exchange Rate on the Foreign Debt

| Year | Foreign Debt (\$ Million) | Exchange <br> Rate | Foreign Debt at Prevailing Exch. Rate (Rs Million) | Foreign <br> Debt at Rs 9.9 to a \$ (Rs Million) | Impact of <br> Exchange Rate Changes on Foreign Debt |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1980-81 | 8765 | 9.90 | 86773.5 | 86773.5 | 0.00 |
| 1981-82 | 8799 | 9.91 | 87198.1 | 87110.1 | 87.99 |
| 1982-83 | 9312 | 12.71 | 118355.5 | 92188.8 | 26166.72 |
| 1983-84 | 9469 | 13.48 | 127642.1 | 93743.1 | 33899.02 |
| 1984-85 | 9732 | 15.15 | 147439.8 | 96346.8 | 5193.00 |
| 1985-86 | 11108 | 16.14 | 179283.1 | 109969.2 | 69313.92 |
| 1986-87 | 12023 | 17.17 | 206434.9 | 119027.7 | 87407.21 |
| 1987-88 | 12913 | 17.61 | 227397.9 | 127838.7 | 99559.23 |
| 1988-89 | 14190 | 19.22 | 272731.8 | 140481.0 | 132250.80 |
| 1989-90 | 15094 | 21.44 | 323615.4 | 149430.6 | 174184.76 |
| 1990-91 | 15471 | 22.42 | 346859.8 | 153162.9 | 193696.92 |
| 1991-92 | 17361 | 24.87 | 431768.1 | 171873.9 | 259894.17 |
| 1992-93 | 19044 | 25.98 | 494763.1 | 188535.6 | 306227.52 |
| 1993-94 | 20322 | 30.16 | 612911.5 | 201187.8 | 411723.72 |
| 1994-95 | 22117 | 30.89 | 683194.1 | 218958.3 | 464235.83 |
| 1995-96 | 22292 | 33.57 | 748342.4 | 220690.8 | 527651.64 |
| 1996-97 | 22509 | 39.01 | 878076.1 | 222839.1 | 655236.99 |
| 1997-98 | 22844 | 43.20 | 986860.8 | 226155.6 | 760705.20 |
| 1998-99 | 25423 | 50.05 | 1272421.2 | 251687.7 | 1020733.45 |
| 1999-00 | 25359 | 51.77 | 1312835.4 | 251054.1 | 1061781.33 |
| 2000-01 | 25555 | 51.44 | 1493434.0 | 252994.5 | 1240439.50 |
| 2001-02 | 27215 | 61.42 | 1671545.0 | 269428.5 | 1402117.00 |
| 2002-03 | 28365 | 58.75 | 166644.4 | 280813.5 | 1385630.00 |

Source: Estimated from Pakistan Economic Survey (Various Issues).

Table 4
Impact of Exchange Rate Changes on Debt

| Year | $\begin{gathered} \text { Foreign } \\ \text { Debt } \\ \text { (\$ Million) } \end{gathered}$ | Exchange Rate | Foreign <br> Debt at Prevailing Exch. Rate (Rs Million) | Changes in <br> Foreign Debt (\$ Million) | External Debt at the Exchange Rate at which the New Loan was Contracted | Impact of Exchange Rate Depreciation on Foreign Debt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1980-81 | 8765 | 9.90 | 86773.5 | 107.0 | 86773.50 | 0.0 |
| 1981-82 | 8799 | 9.91 | 87198.1 | 34.0 | 87110.4 | 88.0 |
| 1982-83 | 9312 | 12.71 | 118355.5 | 513.0 | 93630.63 | 24725.0 |
| 1983-84 | 9469 | 13.48 | 127642.1 | 157.0 | 95746.99 | 31895.0 |
| 1984-85 | 9732 | 15.15 | 147439.8 | 263.0 | 99731.44 | 47709.0 |
| 1985-86 | 11108 | 16.14 | 179283.1 | 1376.0 | 121940.08 | 57343.0 |
| 1986-87 | 12023 | 17.17 | 206434.9 | 915.0 | 137650.63 | 68784.0 |
| 1987-88 | 12913 | 17.61 | 227397.9 | 890.0 | 153323.53 | 74074.0 |
| 1988-89 | 14190 | 19.22 | 272731.8 | 1277.0 | 177867.47 | 94865.0 |
| 1989-90 | 15094 | 21.44 | 323615.4 | 904.0 | 197249.23 | 126366.0 |
| 1990-91 | 15471 | 22.42 | 346859.8 | 377.0 | 205701.57 | 141159.0 |
| 1991-92 | 17361 | 24.87 | 431768.1 | 1890.0 | 252705.87 | 179062.0 |
| 1992-93 | 19044 | 25.98 | 494763.1 | 1683.0 | 296430.21 | 198332.9 |
| 1993-94 | 20322 | 30.16 | 612911.5 | 1278.0 | 334974.40 | 277937.0 |
| 1994-95 | 2217 | 30.89 | 683194.1 | 1795.0 | 390422.24 | 292772.0 |
| 1995-96 | 22292 | 33.57 | 748342.4 | 175.0 | 396296.92 | 352045.0 |
| 1996-97 | 22509 | 39.01 | 878076.1 | 217.0 | 404762.16 | 473314.0 |
| 1997-98 | 22844 | 43.20 | 986860.8 | 335.0 | 419234.16 | 567627.0 |
| 1998-99 | 25423 | 50.05 | 1272421.2 | 2579.0 | 548313.11 | 724108.0 |
| 1999-00 | 25359 | 51.77 | 1312835.4 | 64.0 | 544999.77 | 767836.0 |
| 2000-01 | 25555 | 58.44 | 1493434.0 | 132.0 | 552713.80 | 940720.0 |
| 2001-02 | 27215 | 61.42 | 1671545.0 | 1660.0 | 654671.10 | 1016874.0 |
| 2002-03 | 28365 | 58.75 | 1666444.0 | 1150.0 | 722233.60 | 944210.0 |

Source: Estimated from Pakistan Economic Survey (Various Issues).
Although the impact of exchange rate in Table 4 is considerably less with this adjustment, yet it is still very significant particularly in the late Nineties. The adjusted change in the exchange rate accounts for 39 percent foreign debt in 1989-90 and 63 percent in 2000-01, as compared to 53 and 83 percent with non-adjusted exchange rate over the two periods. This shows that the decline in foreign debt in the later years as shown in Table 1 is absorbed by the depreciation of the exchange rate, and the total public debt increases.

## IV. BUDGET DEFICITS AND DEBT ACCUMULATION

The impact of continuously rising budget deficits on public debt in Pakistan can be explained with reference to the three-gap model: the revenue-expenditure ( $\mathrm{R}-\mathrm{E}$ ) gap; the savinginvestment (S-I) gap; and the trade (X-M) gap. The revenue-expenditure gap of the last two decades has its origins in the complete neglect of domestic resource mobilisation of the earlier periods due to the easy availability of cheaper external resources and flow of remittances from the Middle East. The trends in government revenues are reported in Table 5.

Table 5
Gross Net Revenues of the Government

| (Percent of GDP) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Total Government Revenue | Tax <br> Revenue | Non-tax <br> Revenue | Transfers from <br> Government | Net Income Transfer to Govern- ment | Private <br> Disposable Income | Private <br> Consumption | Private <br> Con- <br> sumption <br> Ratio |
| 1980-81 | 17.7 | 14.0 | 3.7 | 3.3 | 14.4 | 93.8 | 82.6 | 88.1 |
| 1981-82 | 16.6 | 13.3 | 3.3 | 3.5 | 13.1 | 94.7 | 81.3 | 85.9 |
| 1982-83 | 16.9 | 13.5 | 3.4 | 4.4 | 12.5 | 98.4 | 80.1 | 81.5 |
| 1983-84 | 17.8 | 12.8 | 5.1 | 4.7 | 13.2 | 96.3 | 80.2 | 83.3 |
| 1984-85 | 17.0 | 11.9 | 5.1 | 6.5 | 10.5 | 97.6 | 81.6 | 83.6 |
| 1985-86 | 18.0 | 12.3 | 5.8 | 6.9 | 11.2 | 96.8 | 76.3 | 78.8 |
| 1986-87 | 15.6 | 12.3 | 3.4 | 4.7 | 11.0 | 79.2 | 61.5 | 77.7 |
| 1987-88 | 15.9 | 12.1 | 3.8 | 5.5 | 10.4 | 81.1 | 63.2 | 77.9 |
| 1988-89 | 16.9 | 12.9 | 4.0 | 6.5 | 10.4 | 82.8 | 63.5 | 76.6 |
| 1989-90 | 16.2 | 11.7 | 4.5 | 5.8 | 10.4 | 77.1 | 59.9 | 77.7 |
| 1990-91 | 14.2 | 10.7 | 3.5 | 5.0 | 9.2 | 77.0 | 57.6 | 74.8 |
| 1991-92 | 17.3 | 12.2 | 5.0 | 5.6 | 11.6 | 79.6 | 62.9 | 79.0 |
| 1992-93 | 15.3 | 11.3 | 4.0 | 5.7 | 9.6 | 76.3 | 61.2 | 80.2 |
| 1993-94 | 14.5 | 11.1 | 3.4 | 5.6 | 8.9 | 74.9 | 59.0 | 78.7 |
| 1994-95 | 17.0 | 13.6 | 3.4 | 5.8 | 11.2 | 88.8 | 71.3 | 80.3 |
| 1995-96 | 17.8 | 14.3 | 3.5 | 6.7 | 11.0 | 88.6 | 72.1 | 81.4 |
| 1996-97 | 15.6 | 13.2 | 2.4 | 6.9 | 8.8 | 90.5 | 74.0 | 81.8 |
| 1997-98 | 16.0 | 13.2 | 2.8 | 8.0 | 8.1 | 91.0 | 72.1 | 79.2 |
| 1998-99 | 15.9 | 13.3 | 2.7 | 8.1 | 7.9 | 91.3 | 75.7 | 82.9 |
| 1999-00 | 17.1 | 12.9 | 3.4 | 9.2 | 7.9 | 90.7 | 74.4 | 82.1 |
| 2000-01 | 16.7 | 12.9 | 3.3 | 8.0 | 8.7 | 89.8 | 75.0 | 83.5 |
| 2001-02 | 17.2 | 13.2 | 4.0 | 8.0 | 9.2 | 83.5 | 74.4 | 89.0 |

In Table 5 the conventional estimates of the total government revenues have been adjusted for the "Transfers from the Government" to arrive at net revenues. This adjustment is necessitated in view of the fact that all government expenditures are not discretionary. In Table 6 government expenditures are disaggregated into discretionary (non-obligatory) and non-discretionary (obligatory) expenditures. The former are classified as current expenditures, and the latter as government consumption. Expenditures under the head "Government Consumption" are netted out of the total government revenues. This is essential because we know that these are compulsory nondiscretionary entities and must be paid out, while in the case of current expenditures the government can use its discretion to postpone or delay expenses on any head in the face of a revenue constraint. It can be seen from Table 5 that during the first half of the Eighties, transfers from the government almost doubled from 3.3 percent in 1980-81 to 6.5 percent in 1984-85, and averaged 6 percent in the second half of the Eighties and the first half of the Nineties. However, in the second half of the Nineties, they increased more rapidly from 7 percent to 9 percent during the period from 1995-96 to 1999-00, and averaged 8 percent in the last two years of the period.

Table 6
Government Expenditures

|  | (Rs Million) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980-81 | 1982-83 | 1984-85 | 1986-87 | 1988-89 | 1990-91 | 1992-93 | 1994-95 | 1996-97 | 1998-99 | 2000-01 | 2001-02 |
| Current Expenditures | 38079 | 61958 | 92490 | 113398 | 162485 | 192660 | 276725 | 345482 | 340157 | 549183 | 630712 | 651126 |
| General Administration | 2873 | 4079 | 6518 | 7784 | 12343 | 13571 | 19603 | 31627 | 41995 | 38679 | 79690 | 85082 |
| Defence | 15300 | 24566 | 31886 | 38899 | 51053 | 63273 | 87461 | 100221 | 12744 | 143471 | 131637 | 151669 |
| Law and Order | 2031 | 2810 | 4087 | 5533 | 7225 | 8902 | 13619 | 20098 | 21707 | 24864 | 30836 | 34065+ |
| Community Services | 1422 | 2100 | 3013 | 4354 | 5097 | 5356 | 8404 | 10327 | 12416 | 14019 | 15161 | 16147 |
| Social Services | 4904 | 7085 | 10292 | 16222 | 21901 | 27340 | 37332 | 51097 | 56729 | 63713 | 71336 | 77860 |
| Economic Services | 2243 | 5199 | 6110 | 7682 | 8637 | 12029 | 13853 | 15586 | 19109 | 19944 | 25571 | 27966 |
| Unallocables | 129 | 26 | 93 | 1312 | 773 | 1945 | 6955 | 6267 | 6385 | 7007 | 2768 | 2090 |
| Government Consumption | 28902 | 45865 | 61999 | 81786 | 107029 | 132416 | 187227 | 235223 | 171085 | 311697 | 356999 | 360814 |
| Current Subsidies | 2449 | 2799 | 5360 | 5809 | 13277 | 10712 | 7269 | 6452 | 11920 | 15035 | 29028 | 30895 |
| Grants to Provinces | 1297 | 2644 | 9095 | 2613 | 4654 | 822 | 3552 | 2756 | 2098 | 9192 | 8645 | 8803 |
| Domestic Interest | 3152 | 6276 | 10173 | 15817 | 28093 | 35710 | 62733 | 77865 | 126532 | 175273 | 185511 | 189477 |
| Foreign Interest | 2279 | 4374 | 5863 | 7373 | 9432 | 13000 | 15944 | 23186 | 28522 | 37986 | 50529 | 61137 |
| Current Transfers | 9177 | 16093 | 30491 | 31612 | 55456 | 60244 | 89498 | 110259 | 169072 | 237486 | 273713 | 290312 |
| Capital Expenditures | 30820 | 51149 | 57192 | 76186 | 95106 | 119065 | 167060 | 265990 | 320385 | 392253 | 304703 | 395691 |
| Annual Development Plan | 26137 | 28354 | 32653 | 42815 | 48000 | 83112 | 119890 | 153712 | 139744 | 152707 | 150325 | 130000 |
| Development Expenditure | 23658 | 26374 | 31152 | 40635 | 46830 | 81888 | 119298 | 153665 | 0 | 0 | 0 |  |
| Development Subsidies | 2479 | 1980 | 1501 | 2180 | 1170 | 1224 | 592 | 47 | 0 | 0 | 0 |  |
| Loans and Investment | 1976 | 2461 | 1706 | 2260 | 4407 | 5767 | 7558 | 11498 | 12418 | 19441 | 15300 | 9385 |
| Others | 100 | 149 | 469 | 711 | 3860 | 2490 | 2318 | 0 | -3188 | -1425 | 22 | 30 |
| Domestic Debt Amortisation | 1453 | 13431 | 14834 | 20793 | 21673 | 5405 | 8821 | 40486 | 70784 | 98551 | 51120 | 91371 |
| Foreign Debt Amortisation | 3633 | 8734 | 9031 | 11787 | 18336 | 23515 | 29065 | 60341 | 100627 | 122979 | 87936 | 164905 |
| Total Government Expenditures | 68899 | 113107 | 149682 | 189584 | 257591 | 311725 | 443785 | 611472 | 660542 | 941436 | 935415 | 1046817 |

Source: Compiled from Pakistan Economic Survey; Statistical Year Book of Pakistan; and Annual Budget
Statement (Various Issues).

Total government expenditures during this period averaged 22 percent of GDP despite the sharp decline in development expenditures from 6.3 percent to 3.5 percent. It is interesting to note that current subsidies always rising before and after the SAPs declined significantly during the programme period (Table 6). However, the most rapid and significant increase in current transfers has mainly been due to the interest payments on domestic debt. Interest payments on external debt increased sharply in the Nineties, but always remained significantly lower than the domestic debt payments. As a result of these increases in the obligatory current transfers, the net income transfer to the government was significantly lower than the conventional estimates of total revenues, as shown in Table 5. Total revenues amounting to 17.7 percent of GDP in 1980-81 were reduced to 14.4 percent when adjusted for transfers as shown in Columns 2 and 6 of Table 5. However, this decline was more gradual in the Eighties as compared to the Nineties. In fact, the net income of the government became single digit after 1995-96. On the other hand, government consumption (total current expenditures less current transfers) increased from 10 percent to 15 percent during 1980-81 to 1988-89, but declined to 10 percent by 1993-94. It averaged 12 percent in the following four years, and declined further to around 10 percent (Table 7). Overall, the increasing government consumption was matched by a higher net income of the government only in the first four years; beyond 1983-84 it exceeded the net income. As a result, public savings, which were positive with a declining trend in the first four years, became negative for the remaining period. Increased government consumption and/or increased investment with declining and negative savings were responsible for the continued widening of the S-I gap. This gap has serious implications for the revenue-expenditure gap and the trade gap.

The negative public savings and the positive but insufficient private savings resulted in the use of all available external resources to finance the budget deficits as shown in the last Column of Table 7. External resources in excess of 5 percent were used in 1981-82, 1984-85, 1992-93, 199596, and 1996-97. Debt servicing as a percentage of foreign exchange earnings during the Eighties increased from 20.4 percent in 1980-81 to 31.6 percent in 1984-85, and averaged 27 percent in the next five years. Similarly, it increased as a percentage of foreign exchange earnings from 10.6 percent in 1980-81 to 15.6 percent in 1986-87. During the Nineties it averaged around 18 percent [see Pakistan Economic Survey (2002-03)].

## V. CHANGING COMPOSITION OF PUBLIC DEBT

It will be seen from Table 1 that domestic debt was less than 50 percent of the total debt until 1983-84, when public savings were positive (Table 7). It increased from 51 percent in 198485 to 56 percent in 1990-91, and fluctuated between 53 percent to 56 percent until 2002-03. Overall, it exceeded the foreign debt by 13 percent during the period from 1980-81 to 2002-03. One major factor responsible for this increase in domestic debt was the limited availability of external resources in the Eighties due to excessive borrowings in the earlier periods. Pakistan borrowed heavily

Table 7
Investment, Savings and Borrowings

| Year | Government Sector |  |  |  |  | Non-Government Sector |  |  |  |  |  | Govt.+ <br> Non-govt. <br> Net <br> Borrowing $=\mathrm{CAB}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Income Transfer to Governmen | Government Consumption | Government Savings | Government Investment | Net Lending/ Borrowing | Private <br> Disposable <br> Income | Private Consump- tion | Private Savings | Development Sudsidies | Private Investment | Net Lending/ Borrowing |  |
| 1980-81 | 14.4 | 10.4 | 4.0 | 8.5 | -4.1 | 93.8 | 82.6 | 11.1 | 0.9 | 10.7 | 0.4 | -3.6 |
| 1981-82 | 13.1 | 10.3 | 2.8 | 7.9 | -4.7 | 94.7 | 81.3 | 13.4 | 0.6 | 13.7 | -0.3 | -5.0 |
| 1982-83 | 12.5 | 11.4 | 1.0 | 7.2 | -5.5 | 98.4 | 80.1 | 18.2 | 0.5 | 14.6 | 3.7 | -1.8 |
| 1983-84 | 13.2 | 12.1 | 1.1 | 6.4 | -5.0 | 96.3 | 80.2 | 16.0 | 0.3 | 14.3 | 1.8 | -3.2 |
| 1984-85 | 10.5 | 12.1 | -1.6 | 6.6 | -6.3 | 97.6 | 81.6 | 16.0 | 0.3 | 15.1 | 0.9 | -5.4 |
| 1985-86 | 11.2 | 12.8 | -1.6 | 7.1 | -6.6 | 96.8 | 76.3 | 20.6 | 0.5 | 17.8 | 2.8 | -3.9 |
| 1986-87 | 11.0 | 11.5 | -0.5 | 6.0 | -6.1 | 79.2 | 61.5 | 17.6 | 0.2 | 13.3 | 4.3 | -1.8 |
| 1987-88 | 10.4 | 13.6 | -3.2 | 5.8 | -8.5 | 81.1 | 63.2 | 17.9 | 0.3 | 13.2 | 4.7 | -3.8 |
| 1988-89 | 10.4 | 15.1 | -4.7 | 5.5 | -9.6 | 82.8 | 63.5 | 19.3 | 0.3 | 14.0 | 5.3 | -4.3 |
| 1989-90 | 10.4 | 12.7 | -2.3 | 5.5 | -7.5 | 77.1 | 59.9 | 17.2 | 0.1 | 13.6 | 3.6 | -4.0 |
| 1990-91 | 9.2 | 12.0 | -2.8 | 6.8 | -9.5 | 77.0 | 57.6 | 19.4 | 0.1 | 14.0 | 5.5 | -4.0 |
| 1991-92 | 11.6 | 11.6 | 0.0 | 6.8 | -6.6 | 79.6 | 62.9 | 16.7 | 0.1 | 12.8 | 3.8 | -2.8 |
| 1992-93 | 9.6 | 11.1 | -1.5 | 7.6 | -8.8 | 76.3 | 61.2 | 15.1 | 0.1 | 12.4 | 2.7 | -6.1 |
| 1993-94 | 8.9 | 10.0 | -1.2 | 7.3 | -8.3 | 74.9 | 59.0 | 16.0 | 0.0 | 10.8 | 5.1 | -3.1 |
| 1994-95 | 11.2 | 11.6 | -0.3 | 8.1 | -8.3 | 88.8 | 71.3 | 17.5 | 0.0 | 13.3 | 4.3 | -4.0 |
| 1995-96 | 11.0 | 12.5 | -1.5 | 8.1 | -9.5 | 88.6 | 72.1 | 16.5 | 0.0 | 14.2 | 2.3 | -7.2 |
| 1996-97 | 8.8 | 11.8 | -3.0 | 5.7 | -8.6 | 90.5 | 74.0 | 16.5 | 0.0 | 13.9 | 2.5 | -6.1 |
| 1997-98 | 8.1 | 11.3 | -3.2 | 5.3 | 8.2 | 91.0 | 72.1 | 19.0 | 0.0 | 20.1 | -11.2 | -3.1 |
| 1998-99 | 7.9 | 10.4 | -2.5 | 5.2 | -7.4 | 91.3 | 75.7 | 15.6 | 0.0 | 12.1 | 3.5 | -3.9 |
| 1999-00 | 7.7 | 11.2 | -3.5 | 4.7 | -7.9 | 90.7 | 74.4 | 16.3 | 0.0 | 10.2 | 6.0 | -1.9 |
| 2000-01 | 8.6 | 10.2 | -1.6 | 4.4 | -6.9 | 89.8 | 75.0 | 14.8 | 0.0 | 9.9 | 4.9 | -2.0 |
| 2001-02 | 9.2 | 11.3 | -2.1 | 4.8 | -6.9 | 83.5 | 74.4 | 9.2 |  | 8.3 | 5.3 | -1.6 |

both at low rates with longer maturity and at high rates with low maturity, ending up in a debt-trap in the late Eighties and Nineties. Secondly, domestic borrowings, mainly from the non-bank debt sources under the National Savings Schemes (NSS), were used excessively to finance the budget deficits because they were non-inflationary. Compared to the banking sector, deposits in the nonbank sector earned very high rates of return, and a wide range of instruments with varied returns and maturities were available. Furthermore, these deposits are fixed in terms of returns, while in the case of bank deposits the investors and banks have to share the profit and loss equally. Finally, almost all the profits of NSS are exempt from tax, as shown in Table 8.

Table 8
Nominal Rates of Returns of Non-bank Debt Instruments and Commercial Banks

|  |  |  |  |  |  | Nationa | 1 Savings Sc | hemes |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | fence S <br> (Mat | $\begin{aligned} & \text { aving C } \\ & \text { urity Pe } \end{aligned}$ | ertifica riod) |  | National | Khas | Mahana A Accou | $\begin{aligned} & \text { adni*** } \\ & \text { s** }^{* *} \end{aligned}$ | $\begin{aligned} & \text { Comm } \\ & \text { Deposit } \end{aligned}$ | ercial <br> (Matu | ank Fixed ity Period) |
|  | 1 | 3 | 5 | 7 | 10 | Deposit | Deposit | 1 | 5 | 1 |  | 5 \& above |
|  | Years | Years | Years | Years | Years | Certificate | Certificate | Years | Years | Years | Years | Years |
| 1988-89 | 12.0 | 12.6 | 13.5 | 15.4 | 15.6 | 14.6 | 13.4 | 12.0 | 14.0 | 7.3 | 10.1 | 12.3 |
| 1998-99 | 14.5 | 15.2 | 15.8 | 16.7 | 180.0 | 13.0 | 13.0 | 12.0 | 14.9 | 5.7 | 6.7 | 8.0 |
| 1999-00 | 12.0 | 14.5 | 14.9 | 15.3 | 16.0 | seized | seized | 12.0 | 14.9 | 5.4 | 6.3 | 8.9 |
| 2002-03 | 7.0 | - | - | - | 11.6 |  |  | 7.0 | 8.5 | 4.8 | 5.7 | 8.1 |
| Source: National Directorate of Savings (1999-2000), Islamabad. |  |  |  |  |  |  |  |  |  |  |  |  |
| Note: *Non-taxable until 2000. |  |  |  |  |  |  |  |  |  |  |  |  |
| **Taxable in instalment. |  |  |  |  |  |  |  |  |  |  |  |  |
| ***Mahana Amadni is monthly return on savings. |  |  |  |  |  |  |  |  |  |  |  |  |

The bias in favour of the non-bank finances at the expense of the banking sector is also reflected in the comparison between the real rates of returns on NSS deposits and the commercial banks (Table 9).

The real rates of return on commercial banks' one-year maturity deposits were largely positive in the Eighties with the exception of 1980-81 and 1988-89. The situation is reversed in the Nineties because they are positive only for one year, 1999-00, and are equal to the inflation rate in 2000-01. However, the rates are negative for the deposits of 5 years and above maturity for only three years in the Nineties-1990-91, 1993-94, and 1996-97. In fact, the rates of return on commercial banks' longest maturity deposits move fairly close to the National Savings Schemes' shortest maturity deposits of the Defence Saving Certificates (DSCs) in the last three years. The coefficient of correlation between these two series is 0.67 . The DSCs long-maturity deposits are positive throughout the two decades despite the periodic revision of the rates and its linking with the returns on the Pakistan Investment Bond. The impact of this most adverse term structure is reflected in the sharp increase in the share of domestic debt as a percentage of total debt, as shown in Table 1. The use of non-bank debt instruments to finance the deficits was preferred because it remained outside the purview of the conditionality of the SAPs; it was available on tap, there

Table 9

| Real Rates of Interest |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Commercial Banks |  | Defence Saving Certificate |  |
| Year | Inflation Rate | 1 Year Maturity | 5 Year- <br> Maturity | 1 Year - <br> Maturity | 10 Year- <br> Maturity |
| 1980-81 | - | - | - | - | - |
| 1981-82 | 11.10 | -0.80 | 1.30 | 0.90 | 4.50 |
| 1982-83 | 4.70 | 5.80 | 7.70 | 7.30 | 10.90 |
| 1983-84 | 7.30 | 3.20 | 5.20 | 4.70 | 8.30 |
| 1984-85 | 5.70 | 4.70 | 6.70 | 6.30 | 9.90 |
| 1985-86 | 4.40 | 5.00 | 7.60 | 7.60 | 11.20 |
| 1986-87 | 3.60 | 4.80 | 8.60 | 8.40 | 12.00 |
| 1987-88 | 6.30 | 1.80 | 5.80 | 5.70 | 9.30 |
| 1988-89 | 10.40 | -3.10 | 1.90 | 1.60 | 5.20 |
| 1989-90 | 6.00 | 2.40 | 5.50 | 6.00 | 9.60 |
| 1990-91 | 12.70 | -5.80 | -1.50 | -0.70 | 2.90 |
| 1991-92 | 10.87 | -4.50 | 2.20 | 2.40 | 6.00 |
| 1992-93 | 8.67 | -4.30 | 2.10 | 2.70 | 6.30 |
| 1993-94 | 12.86 | -5.30 | -0.30 | 1.80 | 4.80 |
| 1994-95 | 16.16 | -8.90 | -3.10 | -1.70 | 1.29 |
| 1995-96 | 8.04 | -4.30 | 0.60 | 2.20 | 5.19 |
| 1996-97 | 11.13 | -5.20 | -1.60 | 2.70 | 6.24 |
| 1997-98 | 7.80 | -0.20 | 1.20 | 6.70 | 10.24 |
| 1998-99 | 5.70 | -0.30 | 3.20 | 8.80 | 10.27 |
| 1999-00 | 3.85 | 1.55 | 5.05 | 5.15 | 10.16 |
| 2000-01 | 5.40 | 0.00 | 4.20 | 4.60 | 9.41 |
| 2001-02 | 4.90 | -0.10 | 3.20 | 4.60 | 9.40 |

Source: Pakistan Economic Survey (Various Issues).
was no legislation to prevent its excessive use, and it was non-inflationary. However, the successive governments chose to ignore its negative consequences. It enabled the rich to benefit most from the NSS that were meant to benefit the small savers, resulting in rapid and massive debt accumulation. At the same time, it created serious distortions in the term structure of interest rates, with serious implications for the banking industry and the potential investors.

## VI. SUMMARY AND CONCLUSIONS

Accumulation of budget deficits and the resulting public debt in Pakistan has its origins in the early neglect of domestic resource mobilisation. This deficit-debt scenario conforms to the neo-classical paradigm whereby the revenue-expenditure constraint impacts both the S-I and the X-M gaps. The change in the debt-to-GDP ratio is accounted for by the interest rate-growth differential, the foreign exchange effect, and the primary budget deficit. The primary deficits are responsible for higher budget deficits, which due to higher government consumption compared to
its resources leads to higher domestic as well as external borrowings. Excessive external borrowing with limited repayment capacity results in exchange rate depreciation, and consequently the exchange rate exerts a very strong effect on the debt ratio. Primary budget deficits also exert a positive effect on the debt ratio. However, after mid- Nineties the primary budget is surplus. The interest-growth differential does not affect the debt ratio because the interest rates, both nominal and real, have always been controlled and hence remained lower than the growth rate. The residuals exert both positive and negative effects on the ratio, but it is not certain what these residuals are. The high and positive values of the residuals in the period between mid-Nineties to 2002-03 suggest that they may represent variables related to the exchange rate effects, such as the impact of freezing of the foreign currency accounts in the late Nineties, and floating of the currency during 2002-03. Trends in public and private consumption reveal an outflow of capital largely due to the rapid loss of the value of Pakistani currency. Furthermore, the inconsistency of the investment and trade policies and the deterioration in the law and order situation also fuelled this outflow.

The policy of non-bank financing of the budget deficits, to avoid conditionality on the bank finance, led to the accumulation of short-term domestic debt and at the same-time diverted private resources away from investment to the non-bank instruments or abroad. Moreover, this policy led to distortions in the term structure of interest rates with serious consequences for the banking industry-and its negative ramifications for investment and the economy as a whole.

Ignoring the positive fallout of the events of $9 / 11$ on some of the macro indicators without any corresponding positive impact on the micro indicators, which would have led to some decline in poverty, the present situation is not viable for long. The decline in the budget deficit to 4.4 percent in 2002-03 was made possible to some extent by the rise in tax revenues, but at the same time the fall in the development expenditures was disappointing. Despite the improvement in the fiscal sector, Pakistan still remains heavily burdened by the debt incurred in the past, and therefore needs to generate sustained primary surpluses for the coming years. The economy's ability to carry debt needs to be improved through acceleration in the developmental expenditures and a reduction in the current expenditures. In other words, it requires the elements of "proper fiscal governance" to be put in place. This involves clearly laid out rules and procedures for coordination between the Ministries of Commerce and Industry and the Central Board of Revenue to encourage investment and exports, leading to improved revenue generation. The policy of rationalisation of rates of return between the bank and non-bank finance is a step in the right direction, and therefore must be pursued further. Equalisation of the rates of return between the bank and non-bank sectors would lead to a flow of funds into the banking sector and into productive investments either directly or through the stock markets. Taking the non-bank finance off the tap would also help reduce the dependence on this source; it is also essential to put the banking industry on a sound footing. Decline in the budget deficits and debt in the backdrop of $9 / 11$ must be considered a one-time opportunity to overcome the deficit-debt-trap, and serious efforts should be made to prevent a repeat of this situation.

## Appendix 1

Private Disposable Income and Consumption Ratio

| Year | Govt. <br> Revenue | Net |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Tax- <br> Revenue | Non-tax Revenue | Transfers from Govt. | Income <br> Transfers to Govt. | Private Disposable Income | Private Consumption | Private Consumption Ratio |
| 1980-81 | 49201 | 38846 | 10175 | 9177 | 40024 | 260864 | 229879 | 88.1 |
| 1981-82 | 53839 | 43003 | 10836 | 11343 | 42496 | 307012 | 263658 | 85.9 |
| 1982-83 | 61467 | 49029 | 12438 | 16093 | 45374 | 358408 | 291942 | 81.5 |
| 1983-84 | 74855 | 53646 | 21209 | 19573 | 55282 | 404115 | 336747 | 83.3 |
| 1984-85 | 80042 | 55963 | 24079 | 30491 | 49551 | 460917 | 385346 | 83.6 |
| 1985-86 | 92819 | 63083 | 29736 | 35246 | 57573 | 498318 | 392532 | 78.8 |
| 1986-87 | 105692 | 82927 | 22765 | 31612 | 74080 | 534777 | 415674 | 77.7 |
| 1987-88 | 122352 | 92998 | 29354 | 42131 | 80221 | 624263 | 486565 | 77.9 |
| 1988-89 | 144297 | 110338 | 33959 | 55456 | 88841 | 708909 | 543297 | 76.6 |
| 1989-90 | 165585 | 119435 | 46150 | 59312 | 106273 | 786570 | 611015 | 77.7 |
| 1990-91 | 171777 | 129640 | 42137 | 60244 | 111533 | 932975 | 697448 | 74.8 |
| 1991-92 | 231503 | 164307 | 67196 | 75315 | 156188 | 1067734 | 843939 | 79.0 |
| 1992-93 | 241128 | 178391 | 62737 | 89498 | 151630 | 1199959 | 962419 | 80.2 |
| 1993-94 | 272734 | 208410 | 64324 | 105841 | 166893 | 1410192 | 1109980 | 78.7 |
| 1994-95 | 322932 | 257892 | 65040 | 110259 | 212673 | 1683441 | 1351371 | 80.3 |
| 1995-96 | 380260 | 305580 | 74680 | 144154 | 236106 | 1898600 | 1545228 | 81.4 |
| 1996-97 | 384331 | 324641 | 59689 | 169072 | 215259 | 2222772 | 1818213 | 81.8 |
| 1997-98 | 429454 | 354754 | 74700 | 213300 | 216154 | 2437138 | 1929702 | 79.2 |
| 1998-99 | 468601 | 390726 | 77875 | 237486 | 231115 | 2681717 | 2223998 | 82.9 |
| 1999-00 | 536832 | 405824 | 106900 | 288844 | 247988 | 2854273 | 2342417 | 82.1 |
| 2000-01 | 570600 | 441600 | 111400 | 273713 | 296887 | 3075484 | 2567321 | 83.5 |
| 2001-02 | 624100 | 478100 | 146000 | 290312 | 333788 | 3031634 | 2698992 | 89.0 |

Source: Estimated from Pakistan Economic Survey and the Annual Reports of the State Bank of Pakistan (Various Issues).

## Appendix 2

Investment, Savings and Borrowings

| Year | Net Income Transfer to Government | Government Consumption | $\begin{gathered} \text { Government } \\ \text { Savings } \\ \hline \end{gathered}$ | Government Investment | Net Lend-ing/Borrowing | Private <br> Disposable Income | Private Consumption | Private Savings | Private Investment | Net Lend-ing/Borrowing | Govt.+ <br> Non-govt Net <br> Borrowing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1980-81 | 40024 | 28939 | 11085 | 23658 | -11276 | 260864 | 229879 | 30985 | 29846 | 1139 | -10137 |
| 1981-82 | 42496 | 33522 | 8974 | 25767 | -15217 | 307012 | 263658 | 43354 | 44330 | -976 | -16193 |
| 1982-83 | 45374 | 41606 | 3768 | 26374 | -19962 | 358408 | 291942 | 66466 | 53019 | 13447 | -6515 |
| 1983-84 | 55282 | 50741 | 4541 | 26747 | -20892 | 404115 | 336747 | 67368 | 59957 | 7411 | -13481 |
| 1984-85 | 49551 | 57126 | -7575 | 31152 | -29632 | 460917 | 385346 | 75571 | 71408 | 4163 | -25469 |
| 1985-86 | 57573 | 65662 | -8089 | 36548 | -34116 | 498318 | 392532 | 105786 | 91607 | 14179 | -19937 |
| 1986-87 | 74080 | 77482 | -3402 | 40635 | -41424 | 534777 | 415674 | 119103 | 90024 | 29079 | -12345 |
| 1987-88 | 80221 | 104754 | -24533 | 44376 | -65507 | 624263 | 486565 | 137698 | 101793 | 35905 | -29602 |
| 1988-89 | 88841 | 129201 | -40360 | 46830 | -82536 | 708909 | 543297 | 165612 | 120248 | 45364 | -37172 |
| 1989-90 | 106273 | 129562 | -23289 | 56482 | -76866 | 786570 | 611015 | 175555 | 139251 | 36304 | -40562 |
| 1990-91 | 111533 | 145575 | -34042 | 81888 | -115108 | 932975 | 697448 | 235527 | 169093 | 66434 | -48674 |
| 1991-92 | 156188 | 155567 | 621 | 91354 | -88685 | 1067734 | 843939 | 223795 | 172360 | 51435 | -37250 |
| 1992-93 | 151630 | 174680 | -23050 | 119298 | -138796 | 1199959 | 962419 | 237540 | 194472 | 43068 | -95728 |
| 1993-94 | 166893 | 189102 | -22209 | 137073 | -155690 | 1410192 | 1109980 | 300212 | 203794 | 96418 | -59272 |
| 1994-95 | 212673 | 219125 | -6452 | 153665 | -157361 | 1683441 | 1351371 | 332070 | 251345 | 80725 | -76636 |
| 1995-96 | 236106 | 268098 | -31992 | 172816 | -202466 | 1898600 | 1545228 | 353372 | 304481 | 48891 | -153575 |
| 1996-97 | 215259 | 288813 | -73554 | 139744 | -211200 | 2222772 | 1818213 | 404559 | 342419 | 62140 | -149060 |
| 1997-98 | 216154 | 301614 | -85460 | 141495 | 218746 | 2437138 | 1929702 | 507436 | 538781 | -300693 | -81947 |
| 1998-99 | 231115 | 304419 | -73304 | 152707 | -216819 | 2681717 | 2223998 | 457719 | 354554 | 103165 | -113654 |
| 1999-00 | 242298 | 351303 | -109005 | 148767 | -248930 | 2854273 | 2342417 | 511856 | 322100 | 189756 | -59174 |
| 2000-01 | 294796 | 350376 | -55580 | 150325 | -237167 | 3075484 | 2567321 | 508163 | 339314 | 168849 | -68318 |
| 2001-02 | 333788 | 408939 | -75151 | 174192 | -249343 | 3031634 | 2698992 | 332642 | 301207 | 190531 | -58812 |

Source: Estimated from Pakistan Economic Survey and the Annual Reports of the State Bank of Pakistan (Various Issues) .

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