The economy of Pakistan is practically dependent upon foreign resources for its development. This is reflected in the foreign debt of Pakistan which is currently $14 billion (Government of Pakistan 1989).

The purpose of this study is to find out whether Pakistan will end up accumulating a very heavy burden of foreign debt if the present tendency of borrowing were to continue. Also, how would debt servicing affect further demand for external financing. Finally, how could the country break out of this vicious circle of dependency on foreign loans by following alternative strategies of development.

Model for International Debt

We have utilized the two-gap model to identify the demand for foreign loans. Our model has been developed keeping in view the economic conditions in Pakistan. The exogenous variables and notations used in this study are given in the appendix. Given the exogenous growth rate, we can establish GNP growth as follows:

\[ Q_0 = (1 + g) Q_{-1} \]

The change in output/GNP can be represented as:

\[ \Delta Q = (Q_0 - Q_{-1}) \]

The investment function can be of conventional form, given the capital/output ratio:

\[ I = k (\Delta Q) \]

*The author is Assistant Chief in the Pakistan Planning Commission, Islamabad. He would like to thank Mr Khurram Azad Khan, Dr Ashfaqe H. Khan and Dr Meekal A. Ahmed for their valuable Comments on the first draft, which substantially improved the study. He is also indebted to Mr Yousaf Haroon for carrying out all computer work. However, the views expressed entirely belong to the author, and not to the organization he is affiliated with.
The saving function can be of the Keynesian form:

\[ S = s_0 + s_1 (Q) \]  

(3)

From Equations 2 and 3 we can develop the saving/investment gap, which may be called the internal gap, \( G_1 \):

\[ G_1 = (I - S) \]  

(4)

Similarly, the external gap (export/import) can be established as follows:

\[ G_2 = (X - M) \]  

(5)

Thus, the current account can be expressed as:

\[ CA = (X - M) + (R + D) - F_f \]  

(6)

Debt servicing can be estimated from the following equations. We have to pay debt servicing on outstanding loans. It can be represented as follows:

\[ DS_0 = (D_o/N) + i (D_{o-1}) \]  

(7)

In Pakistan, there are two major sources of new loans-foreign private and public borrowing. The debt servicing for these loans can be represented as:

\[ DS_1 = (FPL/N) + i (FPL_{-1}) + i (FGL_{-1}) + (FGL/N) \]  

(8)

Equations (7) and (8) provide total debt servicing.

\[ DS = DS_0 + DS_1 \]  

(9)

Equations 4, 5, 6 and 9 can be utilized to make projections for foreign debt and debt servicing.

**EXPECTED FOREIGN DEBT AND DEBT SERVING**

In 1987-88, estimated real GNP of Pakistan was Rs 586.7 billion. Thus, the real per capita income turned out to be Rs 1496. We were paying 3 percent of our GNP in debt servicing, when the debt outstanding constituted 27 percent of GNP. Based upon the historical pattern of current account deficit, we have made projections for the demand of foreign loans. The results are given in Table 1.

### Table 1: International Debt and Debt Servicing (Gap : I)

<table>
<thead>
<tr>
<th>Years</th>
<th>Debt Outstanding (Rs Billion, Real)</th>
<th>Debt Servicing (As Percentage of GNP)</th>
<th>Debt Outstanding (Rs Billion, Real)</th>
<th>Debt Servicing (As Percentage of GNP)</th>
<th>Per Capita Debt Outstanding (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987-88</td>
<td>160.1</td>
<td>6.4</td>
<td>27</td>
<td>1.1</td>
<td>1496</td>
</tr>
<tr>
<td>1992-93</td>
<td>261.4</td>
<td>29.2</td>
<td>33</td>
<td>3.7</td>
<td>2173</td>
</tr>
<tr>
<td>1997-98</td>
<td>426.6</td>
<td>46.5</td>
<td>41</td>
<td>4.4</td>
<td>3058</td>
</tr>
<tr>
<td>2000-01</td>
<td>573.5</td>
<td>62.2</td>
<td>46</td>
<td>5.0</td>
<td>3783</td>
</tr>
<tr>
<td>2007-08</td>
<td>1,153.7</td>
<td>125.0</td>
<td>61</td>
<td>6.6</td>
<td>6243</td>
</tr>
<tr>
<td>2009-10</td>
<td>1,412.1</td>
<td>152.5</td>
<td>67</td>
<td>7.2</td>
<td>7230</td>
</tr>
</tbody>
</table>

Table 1 reveals that our real outstanding debt of Rs 160.1 billion in 1987-88 will become Rs 573.5 and Rs 1412 billion in the years 2000-01 and 2009-10, respectively. Therefore, the per capita debt in the same years will reach Rs 3783 and Rs 7230, respectively. Therefore, the per capita debt will be 2.5 times in 2000-01 and 5 times in 2009-10, to that of 1987-88. Similarly, the debt outstanding which is 27 percent of GNP will reach 67 percent in the year 2009-10. As is clear from these results, it would continue to increase and could be a future bottleneck for the financing of development in Pakistan. Thus, the economy would be highly indebted as a consequence of the substantial accumulation of foreign debt.

**Trade Policy and Foreign Debt**

The foregoing discussion indicated that our economy could become heavily dependent upon foreign resources. Therefore, some policy measures are essential to forestall this situation. We have analysed that if we could cut down the growth of our imports by 3 percent and increase our exports above the current growth rate by the same rate, then we could reduce our dependency on foreign aid to a considerable amount. The results, based upon these assumptions, are presented in Table 2.

Table 2 indicates that the outstanding debt will become Rs 430.6 billion in year 2000-01, increasing to Rs 460.6 billion in year 2009-10. Thus, the outstanding debt will be only 30 percent of our GNP, at the end of 2009-10, i.e. only 3 percent more than that of 1987-88. Similarly, under the trade policy followed debt servicing will also be curtailed to a substantial amount. The debt servicing of 1.1 percent of
The above table shows that the outstanding debt of Rs 160.1 billion in 1987-88 will become Rs 888.6 billion by the end of 2009-10, i.e. 42 percent of the GNP. In other words, the debt outstanding will be 25 percent of the GNP, less than the normal pattern. Similarly, debt servicing will increase to only 4.6 percent of the GNP, i.e. 2.6 percent less than the normal pattern. The per capita debt outstanding will increase by three times, not five times as indicated in Table 1.

CONCLUSION

Our analysis has revealed that if the present trend of foreign borrowing continues, Pakistan could accumulate foreign loans up to 67 percent of its GNP, by the year 2009-10. The situation could be even worse if there is a shortfall in amortization payments. It was further indicated that the outstanding debt will be growing by 10.4 percent per annum and the demand for new loans will increase by 11 percent per annum. The debt servicing will be increasing by 15.5 percent per annum. In other words, the debt outstanding, debt servicing and per capita debt outstanding will grow by 4.4, 9.5 and 1.5 percent more than the growth of GNP, respectively.

We have identified and analyzed two policy options viz. trade and savings policies. It has been shown that both the policies could significantly reduce foreign dependence. However, trade policy has a more significant impact on the reduction of foreign loans, than that of saving policy. Of course, the introduction of both the policies could be even more helpful to reduce foreign borrowing. However, further research, in this area, could bring out other policy options for reducing the burden of foreign loans.

Table 2

<table>
<thead>
<tr>
<th>Years</th>
<th>Debt Outstanding (Rs Billion, Real)</th>
<th>Debt Servicing (As Percentage of GNP)</th>
<th>Debt Outstanding (As Percentage of GNP)</th>
<th>Debt Servicing (As Percentage of GNP)</th>
<th>Per Capita Debt Outstanding (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987-88</td>
<td>160.1</td>
<td>6.4</td>
<td>27</td>
<td>1.1</td>
<td>1496</td>
</tr>
<tr>
<td>1992-93</td>
<td>248.0</td>
<td>27.5</td>
<td>32</td>
<td>3.5</td>
<td>2317</td>
</tr>
<tr>
<td>1997-98</td>
<td>357.2</td>
<td>38.8</td>
<td>34</td>
<td>3.7</td>
<td>2561</td>
</tr>
<tr>
<td>2000-01</td>
<td>430.6</td>
<td>46.9</td>
<td>34</td>
<td>3.8</td>
<td>2840</td>
</tr>
<tr>
<td>2009-10</td>
<td>640.6</td>
<td>72.8</td>
<td>30</td>
<td>3.5</td>
<td>3280</td>
</tr>
</tbody>
</table>

GNP will increase to only 3.5 percent i.e. about 3 percent less than the normal pattern. In twenty-two years, the per capita debt outstanding will double, but will increase by five times if the normal pattern as indicated in Table 1 as followed. All this indicates that the proposed trade policy can substantially reduce foreign dependency.

Saving Policy

We have also analyzed saving policy, as an alternative policy measure. Assuming that our national savings increase by 3 percent, above the current level, then what will be its impact on foreign borrowing. The results are presented in Table 3.

Table 3

<table>
<thead>
<tr>
<th>Years</th>
<th>Debt Outstanding (Rs Billion, Real)</th>
<th>Debt Servicing (As Percentage of GNP)</th>
<th>Debt Outstanding (As Percentage of GNP)</th>
<th>Debt Servicing (As Percentage of GNP)</th>
<th>Per Capita Loans Outstanding (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987-88</td>
<td>160.1</td>
<td>6.4</td>
<td>27</td>
<td>1.1</td>
<td>1496</td>
</tr>
<tr>
<td>1992-93</td>
<td>169.3</td>
<td>20.4</td>
<td>22</td>
<td>2.6</td>
<td>1408</td>
</tr>
<tr>
<td>1997-98</td>
<td>230.4</td>
<td>27.1</td>
<td>22</td>
<td>2.6</td>
<td>1651</td>
</tr>
<tr>
<td>2000-01</td>
<td>307.3</td>
<td>37.6</td>
<td>25</td>
<td>3.0</td>
<td>2027</td>
</tr>
<tr>
<td>2007-08</td>
<td>695.0</td>
<td>76.2</td>
<td>37</td>
<td>4.0</td>
<td>3761</td>
</tr>
<tr>
<td>2009-10</td>
<td>888.6</td>
<td>96.1</td>
<td>42</td>
<td>4.6</td>
<td>4550</td>
</tr>
</tbody>
</table>
The growth of current account deficit is about 11 percent per annum.

Gap: 2 (Table 2)
Growth in \( X \) = 3 percent per annum above the normal pattern, i.e., it grows by 9 percent per annum.
Fall in \( M \) = 3 percent per annum, above the normal pattern, i.e. 5.5 percent per annum.

Gap: 3 (Table 3)
National savings increase by 3 percent of our GNP, above the normal pattern.

REFERENCE
likely to require an increase in the import bill, unless there is a drastic reduction in
the import of fuel and its replacement by domestic sources at a faster rate than
domestic demand. This is a good instance of partial economic analysis likely to ask
inappropriate questions and receive erroneous answers to economic issues without
the benefit of a more general economy-wide analysis.

Finally, the simulation of increase in national savings also requires further
thought. Such an increase can be brought about through the increase alternatively
in domestic savings, remittances or imports, or combination of these three factors.
The option of increasing imports can be dismissed on the grounds that it will of
necessity encourage the need to contract further foreign debt. The increase in
remittances can only be marginally influenced by the government through
bilateral agreements with labour importing countries and favourable conditions for
the repatriation of foreign earnings, and is otherwise outside domestic control. This
essentially only leaves the option of generating additional domestic savings.

There is at present quite some uncertainty in the magnitude of domestic
savings because it is calculated as a residual, on the basis of gross investment and
stocks and the current account deficit. Gross investment in the public and the
private formal sectors may be known reasonably accurately, but can only be vaguely
estimated in the informal private sector, especially in the agricultural, small-scale
and housing sectors. As in the case of stocks, it is likely that their calculation is
somehow linked to the growth in GDP in various sectors. Nevertheless, this point
is important in the discussion of further resource mobilization in the country because
additional taxation of agricultural incomes and other informal sectors, besides the
already extensive indirect taxation on consumer goods, is likely to divert private
informal saving resources into official channels without necessarily increasing the
overall domestic saving rate in the country.

---

Shafiq Dhanani

Erasmus University,
Rotterdam,
The Netherlands