

## **Foreign Debt, Dependency, and Economic Growth in South Asia**

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Many developing countries are following a policy to attract foreign capital through loans and other means to enhance investment. The inflow of these resources is seen as an addition to investment for accelerating economic growth. However, there are only a few success stories where such resources have made any significant contribution to improve the economic conditions of recipient country.<sup>1</sup> Pakistan and other South Asian countries have received significant amount of foreign loans<sup>2</sup> but its role is critical [Chaudhary and Ali (1993, 1996)]. In spite of increasing foreign aid, South Asia has emerged one of the poorest and illiterate regions of the world, having more than 500 million poor living below poverty line and about 46 percent of the world's illiterate live in the South Asia [UNDP/MHHDC\*(1997)]. This is the region, which has 22 percent of the world's population, while having only 1.3 percent of the world's income. It also appears one of the most indebted regions of the world [Anwar (1995)]. In spite of a significant inflow of foreign aid, the economic conditions remained poor in this region. Such a situation calls for an in depth analysis of the contribution of foreign aid. Therefore, this paper is focused to analyse the role and implications of international debt in South Asia. Besides, South Asia's dependency upon foreign debt is also analysed.<sup>3</sup> In addition, tendency of resources outflow from South Asia to other countries, in terms of debt services, is also identified.

The debt cycle theory provides a rationale for international aid in terms of its contributions to enable recipient countries to enhance economic growth. A country borrows in the first stage, generates additional resources and is able to stand on its own

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<sup>1</sup>The countries which benefitted from international loans are limited. For example, Israel, Egypt, etc.

<sup>2</sup>Pakistan is indebted to the tune of over 35 billion dollars. Its 25 percent of exports earning, 1/3rd of the budget, 3 percent and 90 percent of revenue is washed away by debt services Economic Survey, (1999-2000).

<sup>3</sup>Foreign loans are also treated as foreign aid. Foreign aid does not mean that it is free money. Thus, the words of loans and aid are used alternatively, which means international loans/debt.

feet in the second stage. However, it continues to borrow in the second stage. In the third stage, the country may emerge as surplus of resources and it can repay the loans (debt cycle theory).<sup>4</sup> The process helps recipient countries to sustain and accelerate their economic growth. Thus, international aid is envisaged to help a country to develop faster and pay back the loans from its returns. Chenery's Pioneering dual-gap studies pointed out the need for foreign resources and their role in accelerating economic growth [Chenery and Bruno (1962); Chenery and Strout (1966)]. These studies indicate typical sequence of investment-saving gap and it was followed by export-import gap which was to be filled for accelerating growth in developing countries. A study by UNCTAD (1968) indicates no significant difference between investment-saving gap and export-import gap. These two gaps ultimately merge to budgetary gap. Some studies call them three gaps [Ahmed (1997)]. The basic problem is lack of resources, which emerge in terms of export-import gap and or saving-investment gap. These gaps are indicated by budgetary deficits, which include both the above-mentioned gaps. If the gap is filled through foreign borrowing and the foreign aid fails to improve leads the economic conditions of the recipient developing countries then the contribution of these resources remain a questionable.

Foreign capital may accelerate the process of economic growth, however, there are conflicting views about its contributions as stated above. [Mosely (1980)] stated that the relationship between aid and economic growth is positive for U.K. aided countries and negative for the French and Scandinavian aided countries. There are areas where aid did improve economic conditions, such as the spread of green revolution in the South East Asia, Bangladesh, India and also in the countries like Korea, Malawi and Kenya etc. Its performance remained poor in several other areas too as indicated by the Debt Laffer curves [Claessens (1990)], i.e. poverty alleviation, unemployment reduction and development of institutions. Ali (1993) found no significant relationship between the flow of foreign resources and economic growth in the case of Pakistan. Shabbir and Mahmood (1992), regarding Pakistan, indicated that net foreign capital investment and disbursement of grants and external loans have a positive impact on the economic growth of Pakistan. Thus, the evidences are mixed regarding contributions of foreign aid. Notwithstanding the above, Pakistan in spite of receiving significant foreign aid has reached the stage of default. It is rescheduling its foreign debt to avoid default situation.

The international aid is also meant to supplement domestic savings to bridge investment-saving gap [Thirlwall (1999)]. Its role to enhance savings is also not very clear. The flow of international resources may substitute domestic savings, ultimately the level of investment may not increase. Khan and Rahim (1993) stated that foreign aid has negative relationship to domestic savings with no significant impact on economic growth. A country may fail to mobilise domestic resources if it

<sup>4</sup>See Avramovic (1964); Miksell (1968). They define the stages slightly different. See Chaudhary and Ali (1993).

has an easy access to foreign or domestic borrowing [Chaudhary and Ali (1993, 1996)]. Besides, these resources may not supplement but substitute local resources, [Ali (1993); Khan and Rehman (1993); Khan and Malik (1992); Mahmood and Qasim (1992)]. Thus, it may fail to increase overall available capital for enhancing investment. Bulow and Rogoff (1989) stated that lending to small country must be supported by direct sanctions available to creditor country. Such help must not carry a tag of the country's reputation. The aim of aid is to help the country, not to leave it in a vulnerable situation [Sachs (1988)] supported debt reduction if the loans are not sustainable for a country or its growth is affected by such burden, debt servicing.<sup>5</sup>

Bandera and Luckman (1985) describe how a country becomes heavily indebted by piling up colossal magnitudes of foreign debt. As a result, the debt services could provide a permanent drain on the resources of the recipient country. After a certain level of debt, a country may lose credit worthiness and therefore the flow of resources may become discontinuous, [Krugman (1988)], which could further affect its growth. Moreover, international loans may have multidimensional faces, like political interests and dependency tag attached to them.<sup>6</sup> The aid antagonists argue that foreign assistance is maldistribution and does not reach the poor people in the poor countries, [Thirlwall (1999)]. Moreover, the international assistance, which is meant to improve the economic conditions of developing countries, has not grown to the extent to contribute to show its impact significantly.

The developed countries' (DCs) commitment, under UNO, to transfer one percent of their GDP as foreign aid to the developing countries was never-fulfilled. They have not even transferred 0.07 percent of their GDP, [Thirlwall (1999)]. The debt of the developing countries continued to grow but did not seem to improve significantly the poor conditions in the developing countries. It appears that the DCs are recycling the same fund and the addition to it is a result of transfers from developing countries. Such a cycle of resource flow is making the recipients more and more dependent upon donors. Such an outcome seems true for South Asia.

The outstanding debt of developing countries was \$570 billion in 1980, which increased to 1940 billion in 1995. Presently, their debt is over \$2000 billion.<sup>7</sup> The debt/GDP ratio increased from 28 percent to 40 percent in the same period. However, the debt/export ratio increased from 130 percent to 151 percent. The annual amortisation increased from \$45 billion to 107 billion [World Bank (1997)]. The same transfer of resources has surpassed \$240 billion. The increasing dependency of developing countries, particularly of South Asian countries, seems a

<sup>5</sup>Pakistan has reached to a stage that it was unable to repay the debt services. Therefore it is rescheduling its debt. Also see [Chaudhary (1988)] i.e. unsustainability of debt. Also see [Chaudhary and Waseem (1999)].

<sup>6</sup>USA never had very good relation with India, since India was friendly to USSR. Now USA relations are changing with India, since its relations with China. US is seeking help from India against China.

<sup>7</sup>Increase in foreign loans does not mean that it is helping LDCs to come out of their economic problems.

result of transfer of their resources, which keeps them dependent. Actually the resources from developing to developed countries multiplied, [Thirlwall (1999)]. For such a situation [Weisskopf (1972)] suggested to reschedule the debt to reduce the burden of debt servicing.<sup>8</sup> There exists deep concern in South Asia about their increasing dependency.

South Asia is indebted to over \$180 billion. Their 25 percent of exports are being washed away by debt services. The foreign debt has surpassed 200 percent of their exports. The debt servicing constitutes more than 2 percent of their GDP. In other words, annually, about 2 percent of their GDP is being washed away by the debt services. Such a situation is alarming given the poor economic conditions in the South Asia.

To analyse the above-cited debt issues, related to South Asia's debt, the paper is organised as given below. Part two of the paper provides present foreign dependency of South Asian countries. A model is developed to identify future trends of foreign borrowings and its expected burden. The model is provided in the appendix,<sup>9</sup> however, the empirical findings, based upon the estimates of the model, are discussed in this section. The expected debt burden in the future is identified and its solution in terms of policy options is also provided in the same section. Conclusion and policy implications are given in section three.

### **FOREIGN DEBT, DEPENDENCY, AND ITS IMPLICATIONS**

Increasing foreign dependency may be visualised by looking at the pattern of different economic indicators. Generally, these indicators are the level of debt and debt services to GDP ratio and ratio of total export receipts to foreign debt. Scaling by exports represents the earning power of foreign exchange that can be used for servicing the debt, but it does not take into account the need for export earnings to finance imports, which are determined by GDP. Moreover, the ratio of debt outstanding/GDP ratio provides not only an estimate of the burden on productive capacity of a country, but it also provides an insight into the long run sustainability of foreign debt. An increasing ratio of debt to GDP signifies that the rate of growth of debt is higher than the rate of growth of GDP. Such a situation could lead to unsustainability of foreign loans.

Debt indicators pertaining to Pakistan do not paint an attractive picture of debt burden. The average ratio of total debt stocks to GDP was 32.4 percent in the 1970s, and it further increased to over 38 percent in the late 1990s. The growing numerator of the above ratio indicates that GDP growth is less than the growth of

<sup>8</sup>Pakistan has already reached at a stage that it is rescheduling its loans. Such a situation was identified by same author in 1998, see [Chaudhary (1988); Chaudhary and Ali (1993) and Chaudhary and Ali (1996)].

<sup>9</sup>The model is my earlier [Chaudhary (1988)] version duly published and it is amended by following [Ahmed (1997)].

foreign debt. Such a situation has brought the country to unsustainable level of debt. For India this ratio was 15 percent in the 1970s, 20.5 percent in the 1980s, and it grew to over 36 percent in the late 1990s. This indicates that the economy of India is also becoming more and more dependent upon foreign debt. For Sri Lanka, the ratio was 46.1 percent in the 1970s, and it increased to over 68 percent in the late 1990s, which indicates that the dependency condition of this country is much worse than that of Pakistan and India. For Bangladesh, this ratio was 31.5 percent in the 1970s, and it increased to over 65 percent in the late 1990s. It indicates that its dependency increased more than double in this period. Thus, rather than improvement, the dependency kept on growing. For Nepal, this ratio was 10.4 percent in the 1970s, 28.7 percent in the 1980s and over 45 percent in the late 1990s. It again indicates fast growing dependency upon foreign resources. For Maldives, it was 33.4 percent in the 1970s, 45.2 percent in the 1980s, and 52 percent in the late 1990s. For Bhutan, it was 10.4 percent in the 1970s, 24.2 percent in the 1980s, and over 35 percent in the late 1990s.<sup>10</sup> The debt services also increased at the same pace. About 2 percent of South Asian countries' GDP is washed away by the debt services. The financing of such services have become a bottleneck for their growth. All the above figures indicate that foreign dependency of the South Asian countries has increased very fast. It is an alarming situation for the region.

Sri Lanka and Bangladesh have the worst foreign debt to GNP ratio among the South Asian countries. The growing foreign dependency provides a signal for creditors' liquidity constraints for these countries. If the present trend of foreign borrowing were to continue in the future, these countries are likely to default. Pakistan has already started to reschedule its foreign debt, in 1999-2000. Such rescheduling is an indicator of its poor capacity to repay the debt. The situation calls for better management of foreign debt. To analyse such a situation, a model has been developed to forecast foreign debt of South Asian countries and their expected dependency in the future. The policy options are also explored to solve the debt problem.

### **The Model**

Chaudhary and Ali (1996) and Ahmed (1997) developed debt models to analyse the debt burden of Pakistan. However, the model suffers from several drawbacks. Chaudhary and Ali (1996), following Bandera and Luckman (1985) provided good policy options but it was not based upon simultaneous determination of economic variables. Some of the variables were exogenously assumed.<sup>11</sup> Ahmed (1997) estimated endogenous coefficients of his model and used them for forecasting. However, he was unable to provide effective policy option, and his

<sup>10</sup>All figures are taken from World Debt Tables (1988, 1992, 1996, 1999).

<sup>11</sup>For example the GDP growth, growth of debt and saving rates etc., were exogenously assumed. These variables need to be estimated endogenously.

work was limited to Pakistan only. He derived policy strategies which were developed by [Chaudhary (1988)]. We have also benefitted from these models and amended as per local environment of each country and then estimated the expected debt burden. Based upon the nature of debt burden, its solution is provided by suggesting alternative policy options. The model is provided in the appendix. The empirical findings are discussed below.

### Empirical Findings

The empirical findings of increasing debt burden of South Asia do not provide any bright picture. The debt forecast indicated that if the present trend of borrowing were to continue, these countries will hardly come out of the debt trap and their economic growth will be hampered too. Table 1 provides the results by showing different parameters specified in the model.<sup>12</sup> The external gap exceeds that of the

Table 1

*Projected Foreign Borrowing Needs for South Asian Countries*

(Million, Real)\*

Year	Pakistan		India		
	G1	G2	G1	G2	
2000-01	78777.5	210766.1	149753.1	110942.1	
2004-05	110626.1	266087.3	283151.4	134850.8	
2008-09	9662.9	335929.1	344172.3	163912.0	
2014-15	7835.7	476521.8	603983.5	219657.8	
Year	Bangladesh		Sri Lanka		
	G1	G2	G1	G2	
1997-98	915435	389745.8	24468.81	203859.7	
2000-01	100869	452327.8	27153.6	217135.5	
2004-05	122176	539409.3	31043.2	300919.1	
2008-09	145697	723662.6	43021.5	417031.4	
2014-15	195390	956009.3	62063.4	737584.4	
Year	Nepal		Maldives	Bhutan	
	G1	G2	G2	G1	G2
2000-01	17752.4	19605.3	654.1	2324.2	369.1
2004-05	22822.8	24287.5	883.3	2912.2	583.9
2014-15	39022.4	41487.7	1995.2	6145.3	1101.5

Where GDP= Gross Domestic Product, G1 = Internal Gap, G2 = External Gap.

\*The values are in respective country's currency.

<sup>12</sup>The crucial assumption is that foreign capital can always accommodate the larger of the two gap. It maybe kept in mind is that the borrowing requirement are for each year and does not carry on from the previous year.

internal gap throughout the period. It indicates the need and deficiency of foreign exchange. Therefore, foreign borrowing is essential.<sup>13</sup> External gap is larger than internal gap for Pakistan, India, Bangladesh, Sri Lanka, Nepalese and Maldives. For Bhutan, the internal gap is larger than the external gap. The investment and saving gap also increases for all the seven countries because additional domestic resource mobilisation is insufficient for the required investment and growth. It may be noted that this is the case in spite of decreasing investment and growth rates in some of these countries.<sup>14</sup> It means that in spite of lower needs for investment, the borrowing continued to increase. The external gap increased to 2.5, 2.1, 2.5, 3.6, 4, and 4 times the level of 1997-98 for Pakistan, India, Bangladesh, Sri Lanka, Nepal and Maldives, respectively. The debt is expected to grow more than twice for all the countries. However, the same will increase for about four times for Sri Lanka, Nepal and Maldives. The foreign debt is not sustainable now,<sup>15</sup> and the situation will be even worse in the year 2014-15.

### **Expected Debt and Debt Servicing**

Table 2 indicates projections of real debt burden by the year 2014-15. It is to be noted that expected debt and debt servicing are on increasing trend throughout the period. In the case of Pakistan, total real debt, which is estimated at 38 percent of GDP in 1997-98, which will increase to 86 percent of GDP by 2014-15, if the present trend of borrowing were to continue. Present debt level is not sustainable [Chaudhary and Waseem (1996)] and Pakistan is rescheduling its foreign debt. Such a burden will be almost double the present level. The situation will lead to collapse. It may also be noted that, presently, debt servicing is washing away one-third of its budget, 3 percent of GDP and one-fourth of its exports. It is on the face of that during the late 1990s GDP grew at a lower rate, by 4.5 percent on average. The population growth was about 2.5 percent. Thus, adding population growth and debt servicing exceeds economic growth rate. It means that per capita income growth is negative i.e. -1 percent per year.<sup>16</sup> The debt servicing is expected to grow to 6.2 percent of GDP by 2014-15, which implies that debt servicing will be more than double the level of now. The country will remain in a debt trap and unable to pay the debt servicing. The negative per capita income growth will be even higher in the future. It clearly indicates collapse of the economy and unsustainability of the debt. The economic conditions are presently deteriorating rapidly. The situation will be even worse in the future. No wonder the country is facing economic hardships to repay the loans. In the future it will face a chronic, even fatal situation. The debt

<sup>13</sup>It is true if no alternative policies are formulated to mobilise domestic resources.

<sup>14</sup>For example, [see *Economic Survey* (1999-2000)]. The investment rate decreased from over 20 percent to around 16 percent, over time. Its economic growth fell from over 7 percent to less than 4 percent (1997-98).

<sup>15</sup>See [Chaudhary and Ali (1993, 1996) and Chaudhary and Waseem (1995)].

<sup>16</sup>It will be -5 percent if the domestic debt servicing is added.

Table 2  
*Projected Foreign Debt and Debt Servicing for South Asian Countries*<sup>17</sup>

(Million Real)*									
Year	Pakistan			India					
	GDP	DGDP(%)	SGDP(%)	GDP	DGDP(%)	SGDP(%)			
1998-99	1618562	38.2	3.2	12229334	26.5	4.3			
2000-01	1813682	66.6	3.5	8837271	55.7	4.5			
2004-05	2333241	76.8	4.3	11156851	61.9	5.3			
2008-09	3001636	82.4	5.6	14085267	63.9	6.2			
2014-15	4379814	86.2	6.2	19980220	64.9	6.9			

  

Year	Bangladesh			Sri Lanka		
	GDP	DGDP	SGDP	GDP	DGDP	SGDP
2000-01	1215768	75.1	14.7	761080.6	56.9	8.1
2004-05	1506123	86.5	16.3	1094176	69.3	9.6
2008-09	1865823	98.3	17.2	1573054	81.4	10.8
2014-15	2572676	10.7	18.3	2711617	97.2	12.3

  

Year	Nepal			Maldives			Bhutan		
	GDP	DGDP	SGDP	GDP	DGDP	SGDP	GDP	DGDP	SGDP
1998-99	164081.8	36.78	4.52	2012.41	62.23	13.8	8121.92	78.41	10.32
2000-01	186602.8	49.76	5.97	2668.51	81.28	14.9	9861.89	84.56	11.94
2004-05	235581.8	57.15	6.86	4939.22	86.24	15.6	13170.25	91.46	12.16
2008-09	297416.6	60.40	7.25	7837.93	88.97	16.7	17588.47	93.26	13.47
2014-15	421891.1	61.62	7.39	7837.93	88.97	17.5	27144.31	94.44	15.68

\*In country's respective currency (Pakistani, Indian, Sri Lankan and Nepalese Rs Bangladeshian Taka, Maldivian Ruffia, and Bhutanese Ngultrun, million, Real).

servicing will wash away up to 6.2 percent of GDP in 2014-15, which is 3 percent now. More than 8 percent of economic growth will be required to sustain the foreign debt. Pakistan has never achieved such high economic growth rate. Thus, it will have to sell its assets to repay the debt and debt services. It will also continue to suffer from negative real per capita income growth, since more than economic growth rate will be washed away by debt services. It is on the face that internal debt services are not a part of it. It may be noted that internal debt and debt services are more than the external debt [*Economic Survey (1999-2000)*].

In the case of India, the debt to GDP ratio was 26.5 percent in 1997-98, which is expected to grow to about 65 percent by 2014-15. Presently, 4.3 percent of the economic growth is being washed away by debt servicing which are expected to increase to 6.9 percent in 2014-15. It indicates large outflow of resources and the country is likely to face debt trap. The situation of India is not much different from that of Pakistan. It started borrowing later but borrowed more heavily.

<sup>17</sup>Where GDP = Gross Domestic Product, DGDP = Debt as a ratio of GDP, SGDP = Debt Servicing as a ratio of GDP.



*Bangladesh is one of the highest indebted countries in the South Asia. Its debt to GDP/Debt ratio was 75 percent in 1997-98, which will grow to over 110 percent of its GNP, in 2014-15. Its debt-servicing ratio was over 13 percent in 1997-98, which will grow to over 18 percent of GNP in the year 2014-15. It again indicates a severe burden of debt servicing. The debt service liabilities also show a serious situation. It will be a dream to think whether this country will be ever out of the debt trap and its economic conditions will ever become better. No wonder the country is at the bottom in human development ranking and one of the most poverty ridden countries in the world [World Development Report (1999-2000)].*

Table also illustrates Sri Lanka's debt situation. Its debt/GDP ratio is over 54 percent which is expected to increase to 97.2 percent by the year 2014-15. This situation is chronic. It is also a victim of heavy debt servicing liability which will increase to 12 percent of GDP in the 2014-15, from 7 percent in (1997-98). It means that almost 12.3 percent of the economy's total resources would be consumed up by the debt servicing. Can this country ever grow at a rate to be able to pay the entire debt servicing from its annual economic growth? This answer is very clear that it seems no. It must sell its assets to repay the debt and debt servicing. If so, then the role of the foreign assistance is critical which is leading to collapse the country rather helping it to grow faster.

Nepal's GDP growth rate is lower than that of Sri Lanka which is growing at a rate of 5.5 percent per annum. The total real debt, estimated at about 36 percent of GDP, which will increase to 61.6 percent in 2014-15. The debt servicing liability will increase to 7.4 percent of GDP in 2014-15, from 2.6 percent now. For Maldives and Bhutan, external debt/ GDP ratios are 62.3 percent and 78 percent, respectively. This will increase to 89 percent and 94 percent, respectively, in 2014-15. The debt-servicing will increase to 17 percent and 15.6 percent in 2015, as compared to 13.8 percent and 10.3 percent now.

The above picture of external debt and debt servicing shows a chronic liquidity problem for South Asian countries. This ever increasing debt servicing is expected to seriously affect the creditworthiness of South Asian countries. The possibility of sustainability of debt and repayment of debt servicing will become very weak rather impossible in the future. In the light of opportunity cost, this situation results in lesser domestic resources being available for other development activities e.g. education, health and human development. As mentioned earlier that South Asia is one of the poor and the most illiterate regions of the world. On the face of the above-cited resource transfer, nothing better cannot be expected for the region. Appropriate policies are needed to address the issue. Pakistan and other countries, under severe indebtedness, might find themselves at the verge of the same debt crisis as experienced by Latin American countries in the early 1980s. Debt strategies and policy options are analysed to find some solution to the problem.

### Alternative Parametric Scenarios

The preceding discussion of projected debt and debt servicing liabilities supports the hypothesis that if the present trend in external borrowing of South Asian countries were to continue these countries will end up with a colossal debt burden, unsustainable for the economy. Their economies would become heavily dependent on foreign debt. Therefore, the problem requires immediate policy measures to avoid the future expected debt crisis. Certain remedial measures are also important to bridge the gap between required capital and increasing burden of foreign debt. Alternative scenarios under different assumptions are estimated to draw some policy interferences. These include, (i) measures to mobilise domestic resources, increase taxes, increase savings, reduce non-developmental government expenditure, and increase GDP growth rate; (ii) increase exports; and (iii) apply both of the aforementioned policies at the same time. Before analysing the results of these proposals, it is important to note that how taxes and non-developmental government consumption expenditure affect the budget deficit. GDP growth rate; (ii) increase exports; and (iii) to apply both of the aforementioned policies at the same time. Before analysing the results of these proposals, it is important to note that how taxes and non-developmental government consumption expenditure affect the budget deficit. Ahmed (1997) analysed primary resource deficit as the excess of current expenditure to government income, over time, excluding net interest payments on debt. Foreign borrowing measures the balance of payments and government budget positions. The national income accounting identity shows that primary foreign deficit is the sum of the primary government and private sector deficit. This includes the basic aggregate demand model. The external gap is equal to savings minus investment plus taxes, minus government purchase of goods and services. From this, the external gap can be used to cut government consumption expenditure and increase taxes to enhance additional revenue.<sup>18</sup> The development needs may further be supplemented with domestic resource mobilisation. These variables may be used for policy options to control or reduce foreign debt.

#### Policy Option 1:

*An Increase in the Marginal Tax Rate, Reduction in Non-developmental Government Expenditure, and an increase in the GDP Growth Rate*

Keeping in view revenue generation efforts in the South Asian countries, different policy options are explored to overcome the increasing burden of foreign debt.<sup>19</sup> In the case of Pakistan, first setting the historical GDP growth of 6 percent and an increase in marginal tax rate by 25 percentage point after every five years

<sup>18</sup>Pakistan is attempting to enhance revenue. It is able to increase the tax payers more than 100,000 in the first attempt i.e. just from thirteen cities. It has a capacity to increase at least one million new tax payers. Thus potential to enhance revenue is there.

<sup>19</sup>These policy suggestions are based on historical achievements of the respective countries.

were considered. Ahmed (1997) uses 4.7 percent of GDP growth rate, but it is very low according to the potential and historical growth of Pakistan's economy. Chaudhary and Ali (1996) estimated their regression assuming 7 percent growth rate, which is on high side, given the economic growth in the 1990s. For policy option one, the taxes are assumed to grow by 2 percent of GDP, above the current rate, and government consumption expenditures are decreased by one percent of GDP. All these settings are not abruptly adjusted. Besides, marginal GDP is changed 0.20 percentage point every year i.e. one percent increase after five years. Moreover, marginal tax rate is also assumed to grow by 0.25 percent of the GDP, every two years, and non-developmental public consumption expenditure is reduced by 1 percent of GDP, after every five years. These measures are introduced in the model to estimate scenarios for reduction in the foreign debt. Only 2 percent increase in foreign exports was also considered. The results based upon only on foreign trade are give in the appendix. However, alone this change does not reduce debt burden to the extend that it could be sustained foreign debt. However, it will help with other devices such as given below.

With the above policy options, foreign debt may be reduced to substantial level. Table 3 indicates that Pakistan could reduce its foreign debt burden up to 20 percent of its GDP by 2014-15. In other words, during this period, its foreign debt which is expected to grow to 86.2 percent will be only 62 percent of GDP. Similarly, it could reduce debt servicing from 5.2 of GDP to 6.2 percent of GDP. India could also benefit from the same package to a significant level. India's average

Table 3

*Debt Management under Policy 1 (Scenario 1)\**

Year	Pakistan		India		Bangladesh		Sri Lanka	
	DGP	SGP	DGP	SGP	DGP	SGP	DGP	SGP
2000-01	52.7	4.6	32.2	4.2	71.6	16.1	53.5	7.8
2004-05	58.6	5.2	34.1	4.3	77.8	18.9	62.5	8.5
2008-09	60.9	5.9	36.5	4.4	86.1	19.5	67.4	9.2
2014-15	62.1	5.2	38.3	5.1	91.3	16.4	73.8	10.1
Year	Nepal		Maldives		Bhutan			
	DGP	SGP	DGP	SGP	DGP	SGP		
2000-01	39.8	4.8	61.5	11.8	68.7	9.8		
2004-05	42.73	5.01	65.03	13.74	71.65	11.42		
2008-09	45.91	5.6	67.19	14.79	74.43	12.9		
2014-15	51.98	6.1	62.63	11.32	71.24	11.35		

Where DGP = external debt as a ratio of GDP, SGP = Debt servicing as a ratio of GDP.

\*An increase in the marginal tax rate. Reduce non-developmental government expenditure and an increase in the GDP growth rate.

GNP growth rate, during 1984-98, was 5.2 percent. With the policy measures, it is proposed to increase it to 6.1 percent. Under Scenario 1, India's external debt to GDP ratio is expected to decrease from 64.9 percent to 38.3 percent by the year 2014-15. Similarly, the debt servicing ratio will decrease from 6.9 percent to 5.1 percent of GDP, in the same period, thus, reducing the burden to one-half in fifteen years.

Table 3 also shows the expected position of Bangladesh, Sri Lanka, Nepal, Maldives and Bhutan. The proposed measures for Bangladesh seem to slightly alleviate an already fatal situation; foreign debt to GDP ratio is reduced from 110 percent to 91 percent of GDP, in 2014-15. However, the debt servicing to GDP ratio is reduced to 16.4 percent, i.e. from 18.3 percent of GDP.

Sri Lanka also takes relief from these measures. Its debt to GDP ratio is expected to grow to 97.2 percent by 2014-15, without any policy interference. However, it could reduce to 73.8 percent with the policy measure. The debt servicing liability is reduced to 10.1 percent of GDP, in the same year. The policy one also favourably alters Nepal's results. Foreign borrowing which was expected to grow to 82 percent of GDP, could be reduced to 62 percent. Debt servicing as a percentage of GDP is reduced to 6.1 percent of GDP with the proposed measures. Maldives' debt to GDP ratio was 88.9 percent without any measure and it reduces to 62.6 percent with the policy one measures, in the year 2014-15. The debt servicing liability is reduced to 12.3 percent of GDP, from 17.5 percent of GDP to 11 percent in the same year. The measures for Bhutan seem to slightly alleviate an already poor situation; foreign debt to GDP is reduced from 94.4 percent of GDP to 71.24 percent, in the year 2014-15. The debt servicing to GDP ratio is reduced to 11.3 percent from 15.7 percent in the same year. The policy option helps significantly to reduce the debt burden.

The above analysis leads to the conclusion that all the countries are relieved of debt burden by the above proposed policy one measures. These policy measures were suggested which were achieved in the past or the economy has full potential to adjust to these targets. However, more efforts are needed for complete solution of the debt crises. Sri Lanka's economy responds effectively and it is most relieved by this measure. However, the debt reduction do lead to sustainable level of debt. Although this proposal is not comprehensive enough to give substantial relief for debt burden. But still it provides a policy path to bring the situation under control. However, additional measures are needed to gain fruitful results. For this purpose, policy two is analysed, as given below.

### **Policy Option 2 (Scenario 2)**

Simultaneous efforts on the part of tax increase, enhancing exports, decreasing non-essential imports and increase in savings are expected to generate better results. Under this proposal, the extra efforts are proposed to overcome the debt problem. These changes include: (i) setting the GDP growth rate above the

current level by (2 percent), (ii) increasing the tax rate to 3 percent of GDP; (iii) decreasing the non-development public expenditure by 2 percent of GDP; and (iv) increasing the exports growth rate and savings by 2 percent of GDP. Besides, cut non-essential imports by 2 percent. Tax measures are the same as proposed in policy one. If all these parametric proposals are applied simultaneously to the model, the debt and debt servicing are substantially reduced. The projected results are reported in Table 4.

Table 4 indicates that dependency may be reduced to the extent that debt will no longer wash away the entire fruits of growth. In the case of Pakistan, the debt services are reduced to half of what is expectations for the year 2014-15. The debt to GDP ratio is reduced to 25.4 percent i.e. from 86 percent. The debt services are reduced to below 2 percent of GDP. Such a level of foreign debt and debt services are not a problem for Pakistan, since it had been managing this quantum of foreign debt and growing at more than 6 percent per annum. It may also be noted that the policy package proposed is also such that the economy could sustain such a level of these variables. The economy has even higher potential to grow if appropriate policies are introduced.

In the case of India, the debt to GNP ratio is reduced from 65 percent to about 20 percent of its GDP. The debt services are reduced to only 1.6 percent. Thus, such a level of foreign debt does not create dependency could threaten its economic growth. This level of debt is sustainable and not an obstacle to development.

Table 4

*Debt Management under Policy 2 (Scenario 2)\**

Year	Pakistan		India		Bangladesh		Sri Lanka	
	DGDP	SGDP	DGDP	SGDP	DGDP	SGDP	DGDP	SGDP
2000-01	36.8	3.6	28.9	3.6	86.7	14.3	45.9	5.1
2004-05	41.6	4.2	35.4	4.2	89.7	15.4	48.7	6.8
2008-09	32.8	2.9	26.8	2.7	78.9	9.3	42.6	5.2
2014-15	25.4	1.7	19.4	1.6	63.5	5.8	37.2	3.4
Year	Nepal		Maldives		Bhutan			
	DGDP	SGDP	DGDP	SGDP	DGDP	SGDP		
2000-01	37.8	4.5	56.8	7.4	61.4	9.4		
2004-05	45.6	4.7	59.7	8.2	65.8	10.2		
2008-09	35.4	3.6	44.8	5.6	53.5	7.8		
2014-15	26.9	2.3	31.3	3.5	35.9	3.9		

Where DGDP = external debt as a ratio of GDP. SGP, SGP = Debt servicing as a ratio of GDP.

\*Under assumptions as proposed above.

Bangladesh is one of the most indebted countries. Its debt is expected to grow to over 110 percent of its GDP by 2014-15. However, under the policy 2, it could be reduced to 63 percent of GDP. Similarly, the debt services may also be reduced from 17 percent to 5.8 percent of GDP. Thus, by using the proposed policy package the debt dependency could be reduced to a substantial level. Sri Lanka is expected to accumulate unsustainable level of foreign debt by 2014-15. Its outstanding debt will be only 37 percent of its GDP, reduced from 97 percent of GDP.<sup>20</sup> The debt services will be reduced from 12 percent to 3.4 percent, of GDP.

Thus, the debt default situation could be brought under control if these policies are introduced. However, these countries need further concessions in debt relief to get rid of debt problem. Nepal significantly benefits from the policy package 2. Its debt is expected to grow to 61 percent of GDP by 2014-15 which could be reduced to 27 percent of GDP. The debt services could also be reduced from 7.4 percent to 2.3 percent of GDP by 2014-15. Maldives' foreign debt is expected to grow to 89 percent of its GDP in 2014-15. It could be curtailed to 31.3 percent by 2014-15, if policy package-2 is introduced. The debt servicing will remain only 3.5 percent of GDP, which are more than four times less than these were expected by 2015.

The policy package substantially reduced the debt burden and brings it to a sustainable level. Bhutan is expected to have a similar impact on the level of foreign debt by the year 2014-15. Its foreign debt was expected to grow to about 95 percent of its GDP, which could be reduced to only 36 percent of GDP by 2014-15, under policy 2. The debt services may be reduced from 15 percent to 3.9 percent of GDP by 2014-15. Thus, the debt burden is reduced to a sustainable level and a threat of the collapse of the economy is avoided. All the above indicate that policy option 2 brings the South Asian countries to a sustainable level of foreign debt. Some countries are able to get out of debt trap. However, the poorest countries like Bangladesh and Maldives remain under debt, which is unsustainable. These countries need additional efforts to get out the debt trap or write off debt will help them to sustain their economic growth.

## CONCLUSION

The main focus of this study was to highlight and analyse the problem of rising foreign debt burden in South Asia. The increasing dependency of South Asian economies on foreign resources is evident by their debt and debt servicing to GDP ratios. The debt figures are alarming and indicate that these countries are on the verge of economic insolvency. The ratios of debt to GDP and foreign exchange earnings both show rising trends of foreign dependency beyond sustainable level. Some of the countries have negative per capita real income growth. The debt projection for future suggests that if the present trend of borrowing were allowed to

<sup>20</sup>Some countries have written off its debt due to unsustainability. For example USA has announced to write off some of its debt. The DC's are also considering to write off debt for poor countries.

continue, South Asian countries may end up with foreign debt to a level of unsustainability. Overall, for South Asian countries the debt-servicing ratio, which is now 5 percent of their GDP, will increase to over 14 percent by the year 2014-15. Thus, the dependency of South Asian countries on foreign resources would increase manifold. All the countries have piled up foreign debt to an unsustainable level. So much so that some countries are on the verge of collapse. A comparison of these estimates shows that Bangladesh is relatively more dependent than Nepal is relatively less dependent on foreign resources. However, in the future both the countries will reach such a level of debt that will be unsustainable.

A set of policy measures are suggested for South Asian countries to avoid liquidation. These policy efforts mainly emphasise on three main parameters: (i) increasing the marginal tax rate, reducing non-developmental government expenditure and increasing GDP growth rate; (ii) increasing exports and the marginal savings rate; and (iii) a combination of the above two policies. By following policy I, the debt to GDP ratio in South Asia can be significantly reduced. However, it does not bring these countries to a sustainable level. Among South Asian countries, Sri Lanka will benefit the most by this policy measure, while Maldives benefits the least.

Under policy 2, all the South Asian countries can significantly reduce their foreign debt to sustainable level. However, Bangladesh and Bhutan need additional help to bring their debt to sustainable level. Most probably, there is a need for their debt forgiven. By written off their debt could put them on the path of sustainable economic growth. Presently, these countries have experienced negative real per capita income growth. However, further efforts such as enhancing saving rate, reduction in unnecessary luxuries imports, cutting down unnecessary public expenditures and mobilisation of domestic resources could provide them a relief and they may experience positive per capita income growth.

## APPENDIX 1

### The Model

A simple measure of resource deficit may be indicated by excess of expenditures over income. In the literature there are different measures of resource deficit [Chaudhary (1988); Ahmed (1997); Chaudhary and Ali (1993, 1996)]. Net domestic and foreign borrowing consists upon budget deficit and balance of payment deficit. Chaudhary (1988) suggested that foreign resource requirement might be defined as net interest payment plus amortisation plus deficit in trade and new borrowing to meet development needs. However, Ahmed (1997) measured primary foreign deficit is the sum of public and private deficit. His estimates are limited to Pakistan and do not fully explain the path and quantum of deficit. He also ignores interest payments. For better picture of the deficit there is a need to include interest payments, amortisation and new need for resources. The new need may emerge

from resource gap in saving and investment. Following Ahmed (1997); Chaudhary (1988); Chaudhary and Ali (1996) and Anwar (1995), the resource deficiency may be identified from national accounting identity, which shows primary deficit as follows:

$$Mi - Xi - WRi = (Cgi + Igi - TRi) + (Cpi + Ipi + TRi - GDPi - Ri) \dots \quad (1)$$

or

$$Mi - Xi - WRi = (Igi - Sgi) + (Ipi - Spi) \dots \dots \dots \quad (1.1)$$

The primary deficit is a sum of private and public deficit.

Where  $Mi$  = Imports,  $Xi$  = Exports,  $WRi$  = Unrequired transfers from abroad (net). It includes workers remittances.  $g$  = Government (spending),  $p$  = Private,  $I$  = Investment,  $GDP$  = Gross Domestic Product.  $S$  = Savings,  $Ri$  = other income (unrequited transfers),  $C$  = Consumption/Expenditures,  $i$  = Time period,  $TR$  = Revenue; tax and non-tax and surplus of corporate sector,  $d$  = domestic.  $GDPi + Ri - TRi$ , is private disposable income. Basically, it represents two-gap model.

Over time, the expansion or contraction of private and public sector, will determine the foreign resource gap as well as the domestic capacity to close the gaps from domestic resources.

$$(Mi - Xi - WRi) = (Mi-1 - Xi-1 - WRi-1) + [(ki Gi+1 - ki-1 Gi)/Gi + ki Gi+1 - \{ (MTRi - MRCgi) + MRSpi (1 + MURi - MTRi) \}] gi GDP-1 \dots \quad (2)$$

Where  $M$  and  $X$  are imports and exports.  $MTR$  = Marginal tax rate,  $MRC$  = Government expenditure,  $FR$  = Transfers from abroad,  $UR$  = Unrequired Transfers,  $MRS$  = Marginal saving rate and  $gi$  = Growth rate. The equation indicates that primary resource deficit is a sum of private and public deficit. It includes foreign resource deficit, through exports and imports earnings/deficits. Thus, the resource deficit may be identified through two gaps, which includes the third gap. The parameters may be estimated by holding some values constant. Say if the primary deficit is increasing over time, we can eliminate its impact by either increasing taxes or savings. It can also provide us policy framework to control foreign resource deficit. In other words, how much resources can be generated by different means to curtail foreign dependency. The budget deficit (GBD) may be identified as follows:

$$GBD = 1 + \phi(Igi - Sgi) + \beta i(1 + ei)FD-1 + (1 + a)(1 + \phi) - 1 Ddi-1 \dots \dots \quad (4)$$

Where  $FD$  = Foreign debt, " $e$ " is depreciation of foreign exchange,  $DD$  = Domestic debt,  $\beta$  is interest rate,  $a$  is interest on domestic loans and  $\phi$  is inflation rate. The current account deficit ( $CAD$ ) will reflect the need for foreign resources ( $FK$ ), which may be stated as:



$$CAD=(1+\phi) (Mi-Xi - WRi) + \beta (1+ ei) (FD-1) + (\eta-1) (1+ ei) Fki-1 \dots \quad (5)$$

Where  $\beta$  is interest rate on foreign loans,  $\eta$  represents real rate of return, interest on domestic debt and domestic inflation. The foreign borrowing is needed to finance the current account deficit in the balance of payment, while additional funds may be Borrowed for development purposes too.

$$Fbi= CADi-\Delta Fki + \Delta FRi =CADi-Gfki(1+ei) Fki-1 + Gfri (1+ei) Fri-1 \quad (5.1)$$

Where  $Gfri$  and  $Gfki$  are exogenously given growth rates of foreign reserves and foreign capital.

$$Fbi = (1+ei) FDi-1 + Fbi \dots \dots \dots \quad (6)$$

The domestic borrowing ( $DB$ ) may be given as:

$$DB= BDi - (Fbi - \Delta FRi) - \Delta H=BDi - Fbi + gFRi (1+ei) Fri-1-gHi Hi-1 \quad (7)$$

$Hi$  is hot money supply,  $gFRi$  is growth rate of foreign resources. The budget deficit is the combination of domestic borrowing, foreign borrowing and change in foreign reserves and the monetisation. We are keeping (assuming) domestic debt constant for this simulation. The parameters for foreign debt are estimated. For Pakistan these variables have the historical values:  $ei=0.085$ ,  $(\phi)$  is 0.09, the growth of  $H$  is 0.145, while the same for foreign debt is 0.05 percent unrequired transfers growth is 0.06  $MRS=0.15$ ,  $MRC=0.12$ ,  $MT=0.18$ ,  $GDP$  growth is  $=0.06$ . The GDP growth rate is assumed 6 percent, historical trend, except the 1990s for Pakistan. Similarly the needed values are calculate for other countries, based upon historical data. The overall need for resources to fill the resource gap may be identified by including saving and investment gap; private ( $pi$ ) and government saving and investment ( $Sgi, sdI$ ). Only the main equations are given above. For detailed model see: [Chaudhary (1988) and Ahmed (1997)].

**APPENDIX II**

Appendix Table 1

*Scenario under Trade Policy\**

Year	Pakistan		India		Bangladesh		Sri Lanka	
	DGDP	SGDP	DGDP	SGDP	DGDP	SGDP	DGDP	SGDP
2000-01	58.23	6.23	38.76	6.37	132.87	24.80	101.30	10.21
2004-05	65.34	6.99	43.36	7.05	142.42	26.58	119.25	12.16
2014-15	71.66	7.43	46.63	7.25	153.26	28.61	114.69	15.36
Year	Nepal		Maldives		Bhutan			
	DGNP	SGNP	DGNP	SGNP	DGNP	SGNP	DGNP	SGNP
1994-95	15.82	2.01	43.81	9.64	32.64	5.76		
2000-01	20.51	3.96	72.38	15.92	71.45	12.62		
2004-05	33.16	4.45	74.62	16.41	77.73	13.73		
2014-15	40.27	4.99	77.46	17.04	83.60	14.77		

Where DGDP= external debt as a ratio of GDP, SGDP=Debt servicing as a ratio of GDP.

\*An increase in exports by 2 percent.

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## **Comments**

The paper is interesting in so far as it contains comparative information on foreign debt. The value of this information will be greatly enhanced if it is presented in terms of constant dollars. There are a number of deficiencies in the methodology applied by the authors. They begin by giving three policy options, but develop two scenarios for one option besides the base case. A critical assumption relates to constancy of domestic debt. With declining access to external financing, domestic borrowing is called upon to finance the bulk of the deficit. It is unrealistic, therefore, to assume constant domestic debt. Variations in foreign exchange rates, interest rates and inflation can be disregarded, as the authors have done, at the cost of serious loss of analytical power. An obvious example would be that the falling real interest rates on domestic debt will slowdown its growth, while rising real interest rates on external debt increase its burden. The model simulations do not hold good for initial year in case of Pakistan, Bangladesh and India. Oddly enough, India with its sizeable reserves has been treated in the same way as the countries with alarmingly low levels of reserves.

No analysis is presented of factors responsible for rapid debt accumulation. Effective use of aid contributes to debt sustainability. Similarly creation of conditions for steady inflow of foreign direct investment finances current account deficit without creating corresponding debt liabilities. The paper could shed some light on these important aspects as well. The effect of taxes and non-development expenditure on the budget deficit is noted but not explained. As a matter of fact, the paper does not define the level of sustainability of debt. This disables the analytical framework to predict any useful debt sustainability landmarks.

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