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Self-Reliance and the Implications for Growth and Resource Mobilisation*

A. R. KEMAL

I. INTRODUCTION

Whereas self-reliant growth has been the avowed objective of successive governments in Pakistan, the realisation of self-reliance has become even more difficult with the passage of time. Pakistan opted for an aid-dependent growth strategy in the early Sixties with a view to accelerating the growth of output. It was argued that with the help of foreign aid Pakistan could realise a growth rate of 7.5 percent and through higher rates of savings and higher growth of exports she would attain self-reliance in a period of 20 years. [See Chenery and MacEwan (1965).] The perspective Plan: 1965–85 [see Government of Pakistan (1965)] had projected that the domestic resources of Pakistan would be sufficient to finance 95 percent of investment in 1985 when investment was expected to be as large as 22.9 percent of GNP. However, Pakistan could finance only 70.6 percent of her investment in 1984-85 while the investment was only 17.3 percent of GNP. The Perspective Plan [see Government of Pakistan (1988)] aims at self-reliance by the year 2003; it projects that domestic resources would finance 95 percent of investment but the investment would rise only to 18.4 percent of GNP by the year 2003.

The emphasis on self-reliance, especially after the suspension of aid to Pakistan by the U.S.A., has figured more prominently in the last few months. The concern for self-reliance is amply reflected in the appointment of a Committee on Self-reliance [Government of Pakistan (1991)] by the Prime Minister with a view to formulating a strategy to attain self-reliance in the shortest possible time period. Notwithstanding the government's pronouncements regarding self-reliance, the fact remains that goals have not been defined quite clearly by the government. It is, therefore, no wonder that neither have the implications of the self-reliance strategy been worked out nor has any strategy been formulated to realise the objective.

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A. R. Kemal is Joint Director at the Pakistan Institute of Development Economics, Islamabad.

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This paper attempts to bring into focus the meaning and significance of self-reliant growth, to formulate a strategy to realise the objective and to draw implications of the strategy for Pakistan's economy. The paper is structured as follows. Section II examines the concept of self-reliance variously defined by the government at different points in time. Section III examines as to why the aid-dependent growth strategy did not lead to self-reliance in the past. Section IV examines implications of the self-reliant growth strategy for savings and investments and imports and exports. Section V presents the main conclusions of the paper.

II. MEANING OF SELF-RELIANCE

Self-reliance has been variously defined in Pakistan. According to the Perspective Plan (1988), self-reliance means, "financing investment increasingly through domestic resources, balancing the revenue budget, achieving self-sufficiency in food, bringing about a gradual reduction in the current account deficit on the balance of payments, progressively diversifying capital goods production, and acquiring appropriate technology through the development of skilled manpower, research, technology and other resources for development". Zaman (1989) defines it as having "the freedom to choose who we rely on, when and by how much". The Self-reliance Committee [Government of Pakistan (1991)] defines it as "a condition in which the nation makes free and voluntary choices in the disposition of its resources and output and in setting its priorities..... Self-reliance is both an attitude and an approach on the one hand, and a commitment to mobilise resources and skills to the maximum extent and live within those resources on the other". The Ministry of Finance and Economic Affairs [see Government of Pakistan (1991a)] defines self-reliance as a means to create "a dynamic, efficient and internationally competitive economy that is not overly dependent on foreign borrowings for financing its investments and its deficits in the budget and the balance of payments".

It is obvious that various ministries at different points in time have taken self-reliance to mean quite different things. Sometimes, budgetary deficits have been equated with dependence on foreign aid[1] and sometimes short-term loans to finance the deficit in the balance of payments or investments are considered to be consistent with self-reliance but long-term finances for the same purposes are taken as the negation of self-reliance. In view of so much confusion about the definition of self-reliance, it is hardly surprising that neither any strategy has been formulated, nor any policy measures have been devised to attain self-reliance.

In the present study, self-reliance strategy is defined as the growth strategy

[1]They are not a necessary condition for dependence and their removal is hardly sufficient for self-reliance.

which leads to doubling of per capita income in a period of no more than 15 years and to eliminating the need for any type of borrowing to finance investments over a specified period of time.

III. AID-DEPENDENT STRATEGIES FOR SELF-RELIANCE

Since investible funds are rather limited in the initial stages of the development process, developing countries rely on foreign aid to supplement their investible resources. The capital inflows, therefore, allow an economy to grow at a higher rate than is otherwise possible. Pakistan also relied rather heavily on foreign aid during the Sixties to accelerate the growth rate and hoped that an increasing proportion of incremental income would be saved and a larger proportion of output would be diverted to export markets so that the economy would become self-reliant in a short span of time. It was expected that the marginal savings rate would rise from 22 percent in the Second Plan period to 28 percent by 1975–80 but oddly enough to fall to 25 percent in 1980–85. However, the marginal savings rate, in fact, has fallen and ranges between 12 and 14 percent. Similarly, the plan had predicted a sharp fall in the current account deficit, but in fact it has continued to grow.

Why did the aid-dependent growth strategy not lead to an increase in savings and exports and consequently to self-reliance? Rehman (1968); Griffen and Enos (1970) and Naqvi (1971) among many others, have argued that foreign capital inflows erode domestic savings; instead of supplementing foreign capital supplants domestic savings efforts. Consequently, the economy is never able to generate sufficient resources to finance its investments.

Whether foreign aid has in fact retarded the development process or benefitted the economy has not been examined in a systematic way in the past. Two of the papers being presented in this meeting of the PSDE, see Khan (1992) and Mahmood (1992) examine the impact of foreign aid on Pakistan's economy. The present study also examines the relationship between foreign aid and the domestic savings efforts. In order to ascertain the relationship, it has been hypothesised that savings are influenced by the levels of income, foreign capital inflows,[2] and the inflation rate. A dummy variable to capture the effect of change in the regime has also been introduced.

The variables have been denoted as follows:

S = *Savings;*

SPR = Private Savings;

[2]It is argued that commodity aid, food aid and project aid may have different impact on the mobilisation of resources and as such they may be taken as separate variables. However, no such distinction has been made in this study, because they tend to be collinear.

SPU = Public Savings;
FKI = Foreign Capital Inflow;
Y = GNP at Market Prices;
INF = Inflation Rate; and
D = 0 for 1972-73 to 1977-78
= 1 for 1978-79 to 1989-90.

The relationship has been estimated both in terms of current as well as constant prices. The estimates are as follows:

At Current Prices

$$S = \underset{}{8730.1} + \underset{(17.12)}{0.129\,Y} - \underset{(1.57)}{.328\,FKI} - \underset{(2.28)}{539.8\,INF} + \underset{(1.80)}{9177.4\,D}$$

$$R^2 = 0.99,\ \bar{R}^2 = 0.98,\ D.W. = 2.38,\ F = 270.2$$

$$S_{PR} = \underset{}{7410.6} + \underset{(15.39)}{0.137\,Y} - \underset{(1.86)}{0.458\,FKI} - \underset{(1.76)}{497.75\,INF} + \underset{(0.59)}{3547.7\,D}$$

$$R^2 = 0.98,\ \bar{R}^2 = 0.97,\ D.W. = 2.93,\ F = 183.3$$

$$S_{PU} = \underset{}{2319.4} - \underset{(1.64)}{0.001\,Y} + \underset{(.94)}{.130\,FKI} - \underset{(.24)}{42.0\,INF} + \underset{(1.68)}{5629.46\,D}$$

$$R^2 = 0.54,\ \bar{R}^2 = 0.40,\ D.W. = 2.79,\ F = 3.87$$

$$S/Y = \underset{}{.154} - \underset{(.97)}{.182\,E{-}7\,Y} - \underset{(.79)}{.409\,E-6\,FKI} - \underset{(5.34)}{.003\,INF} + \underset{(2.25)}{.028\,D}$$

$$R^2 = 0.85,\ \bar{R}^2 = 0.80,\ D.W. = 1.78,\ F = 17.92$$

$$SPR/Y = \underset{}{.144} + \underset{(1.19)}{.179\,E-7\,Y} - \underset{(2.10)}{.880\,E-6\,FKI} - \underset{(6.04)}{.0029\,INF} + \underset{(1.55)}{.016\,D}$$

$$R^2 = 0.87,\ \bar{R}^2 = 0.83,\ D.W. = 3.03,\ F = 21.89$$

$$SPU/Y = \underset{}{.024} - \underset{(2.84)}{.442\,E{-}7\,Y} + \underset{(.46)}{0.197\,E{-}6\,FKI} - \underset{(.62)}{.303\,E{-}3\,INF} + \underset{(1.34)}{0.014\,D}$$

$$R^2 = 0.44, \ \bar{R}^2 = 0.26, \ D.W. = 1.73, \ F = 2.51$$

At Constant Prices

$$S = \underset{}{13244.0} + \underset{(5.68)}{0.113}\ Y - \underset{(1.71)}{.258}\ FKI - \underset{(2.00)}{375.3}\ INF + \underset{(2.04)}{7688.7}\ D$$

$$R^2 = 0.96, \ \bar{R}^2 = 0.95, \ D.W. = 1.77, \ F = 84.38$$

$$S_{PR} = \underset{}{7859.6} + \underset{(4.82)}{0.136}\ Y - \underset{(2.01)}{0.441}\ FKI - \underset{(0.75)}{200.1}\ INF + \underset{(0.325)}{1729.0}\ D$$

$$R_2 = 0.92, \ \bar{R}^2 = 0.90, \ D.W. = 2.12, \ F = 52.88$$

$$S_{PU} = \underset{}{7471.1} - \underset{(1.43)}{0.023}\ Y + \underset{(1.59)}{.190}\ FKI - \underset{(1.07)}{159.1}\ INF + \underset{(1.98)}{5920.4}\ D$$

$$R^2 = 0.57, \ \bar{R}^2 = 0.43, \ D.W. = 2.43, \ F = 4.22$$

$$S/Y = \underset{}{.193} - \underset{(2.09)}{.111}\ E{-}6\ Y - \underset{(2.71)}{.109}\ E - \underset{(2.91)}{0.5}\ FKI - \underset{(2.99)}{.146}\ E{-}\ 0.3\ INF + .030D$$

$$R^2 = 0.67, \ \bar{R}^2 = 0.56, \ D.W. = 1.87, \ F = 6.46$$

$$SPR/Y = \underset{}{.173} - \underset{(0.32)}{.286}\ E{-}7\ Y - \underset{(2.67)}{.177}\ E{-}5\ FKI - \underset{(.87)}{.731}\ E{-}3\ INF + \underset{(.81)}{.014}\ D$$

$$R^2 = 0.44, \ \bar{R}^2 = 0.264, \ D.W. = 1.81, \ F = 2.53$$

$$SPU/Y = \underset{}{.035} - \underset{(1.84)}{.103}\ E{-}6\ Y + \underset{(1.60)}{.673}\ E{-}6\ FKI - \underset{(1.2)}{.627}\ E{-}3\ INF + \underset{(1.47)}{0.015}\ D$$

$$R^2 = .50, \ \bar{R}^2 = .35, \ D.W. = 1.93, \ F = 3.29$$

The above results show that foreign capital inflows have been adversely affecting Pakistan's savings efforts. Another interesting result is the negative and significant relationship between private savings and foreign capital inflows, and a positive though insignificant relationship between public savings and foreign capital inflows.

This rather unexpected result reflects the fact that government expenditures have expanded as the economy grew, *a la* Parkinson's Law, irrespective of foreign capital inflows. However, it seems that increased capital inflows, by reducing the need for the government to mobilise resources for balancing its budget, has led to higher disposable incomes of the households and consequently to an increase in private consumption. Therefore, the argument that capital inflows lead to higher levels of investment, output and savings and eventually to self-reliant growth has not been supported by Pakistani data.

IV. IMPLICATIONS OF SELF-RELIANT GROWTH OF THE ECONOMY

With a view to realising the objective of self-reliance, a time period needs to be specified over which the need for foreign aid is to be eliminated. A meaningful strategy would not specify a time period in the very distant future. Once the time frame is specified, the required growth rates of imports and exports and the required rates of savings and investments for self-reliance over a specified period of time can be ascertained through the following relationship.

Let the required growth rate of exports and imports be a and b percent, imports are k times the exports in the base year and the country has to eliminate the balance of payments deficit over a period of t years. Then

$$X_t = X_o e^{at} \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \text{(i)}$$

$$Mt = M_o e^{bt} \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \text{(ii)}$$

$$M_o = k \; X_o \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \text{(iii)}$$

Then for self-reliance

$$e^{(a-b)t} = k \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \text{(iv)}$$

$$or \; (a-b)t = ln \; k \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \ldots \quad \text{(v)}$$

While it is quite obvious that the smaller the time period, the required differential in the growth rate of imports and exports would be larger, condition (v) also shows that it is not the magnitude of the growth rates but it is the differential in the two growth rates which determine the pace of movement towards self-reliance. The trade deficit can be eliminated by reducing the growth rate of imports or alterna-

tively by accelerating the growth of exports or a combination of the two. It is encouraging to note that the government does not have to necessarily reduce imports for eliminating deficit in the balance of payments. The export-led strategy by improving the allocation of resources may accelerate the pace towards self-reliance. Even the required adjustment may turn out to be smaller.

Pakistan can attain self-reliance over a period of ten years provided exports grow at a rate of 12 percent and the growth of imports is contained to 7 percent. Since workers' remittances are expected to fall and then stabilise, the invisible balance inclusive of unrequited transfers deteriorates sharply in the first few years. One possible balance of payments scenario under self-reliant growth is presented in Table 1.

Table 1

Self-Reliance: Balance of Payments Projections

(Million $)

Period	Trade Balance	Export	Imports	Invisible Balance	Current Account Balance
1989-90	–2485	4926	7411	594	–1891
1990-91	–2413	5517	7930	363	–2050
1991-92	–2306	6179	8485	172	–2134
1992-93	–2157	6921	9078	35	–2122
1993-94	–1962	7751	9713	–18	–1980
1994-95	–1712	8681	10393	–111	–1823
1995-96	–1397	9723	11120	–167	–1564
1996-97	–1009	10890	11899	–243	–1252
1997-98	–535	12197	12732	–339	–874
1998-99	+ 36	13660	13624	–455	–419
1999-2000	+ 722	15299	14577	–650	+ 72

Let c and d be the required growth rate of savings and investment, and in the base year investment is m time savings and self-reliance is to be realised over t years. Then

$$S_t = S_d e^{ct} \quad \text{(vi)}$$

$$I_t = I_o e^{dt} \quad \text{(vii)}$$

$$I_o = m \; S_d \quad \text{(viii)}$$

Then for self-reliance

$$e^{(c-d)t} = m \quad \text{... ... ... (ix)}$$

or $$(c-d)t = In\ m \quad \text{... ... ... (x)}$$

While even in the case of the elimination of the resource gap, it is the differential between the growth of savings and investments which matter, yet the magnitude of the growth rates of investment determine the growth rate of output. The inter-relationships between the growth rate, savings, capital-output ratio and the time period over which self-reliance is to be realised, shown in Table 2, may be derived on the basis of the following simple relationship.

$$Y_t = Y_o\, e^{gt} \quad \text{... ... ... (xi)}$$

$$S_t = S_o + \alpha\,(Y_t - Y_o) = s_o\, Y_o + \alpha\,(Y_o e^{gt} - Y_o)$$

$$= [s_o + \alpha\,(e^{gt} - 1)]Y_o \quad \text{... ... ... (xii)}$$

$$I_t = k\, Y_t = k_g\ Y_o e^{gt} \quad \text{... ... ... (xiii)}$$

Since self–reliance implies $I_t = S_t$

$$[s_o + \alpha\,(e^{gt}-1)]\ Y_o = [\ kg\ e^{gt}\ ]\ Y_o \quad \text{... ... ... (xiv)}$$

or $$\alpha = \frac{kg\ e^{g\,t} - so}{e^{g\,t-1}} \quad \text{... ... ... (xv)}$$

Table 2

The Required Marginal Savings Rate if Self-reliance is to be Attained Over a Period of Ten Years

Capital-Output Ratios	Required Marginal Saving Rates — Growth Rates		
	7 Percent	6 Percent	5 Percent
3.4	.34	.28	.22
3.0	.28	.23	.17

The self-reliant growth strategy requires that the marginal savings rates should rise to 34 percent if the per capita income is to double in about 18 years. The required marginal savings rate can be reduced to 28 percent, provided the capital-output ratio falls from 3.4 to 3.0. This calls for human resource development leading to higher levels of productivity without an increase in capital intensity.

Since the low saving rate in Pakistan is essentially due to negative public savings, the savings rate can be enhanced by controlling the budgetary deficit which calls for a major resource mobilisation effort. The resource mobilisation effort may involve the withdrawal of tax exemptions being enjoyed by the relatively more well-off classes of society. At the same time, exports would have to grow at the rate of 12.0 percent while growth of imports is to be restricted to 7.0 percent per annum. The rapid growth of exports, however, is possible only if basic changes in the incentive structure including the structure of protection are effected. Similarly, the growth of imports may be restricted to seven percent only if the country pursues expenditure reduction policies and indulges in selective efficient import substitution.

V. CONCLUSIONS

A self-reliant growth strategy must aim at reducing the dependence on aid immediately and eliminating it over the not very distant future. The strategy to attain self-reliance involves setting investment, savings, import and export targets consistent with self-reliance over a specified period of time without jeopardising the growth prospects, on the one hand, and to devise a strategy which makes the transition from aid-dependent growth to self-reliant growth with minimum pains, on the other.

Self-reliance cannot be attained by pursuing an aid dependent growth strategy without an active intervention of the government to mobilise domestic resources and to promote exports. Pakistan's past experience shows that foreign aid leads to a fall in the savings rate. The fall in the saving rate may be attributed to the failure of government to mobilise resources which in turn lead to higher disposable incomes and consequently higher private consumption. The need for mobilisation of resources is, therefore, obvious and the best way to mobilise resources is to widen the tax net by withdrawing tax exemptions from various types of incomes and different types of goods and users which have been granted on one pretext or another.

Self-reliance in Pakistan is sometimes taken as equivalent to the conservation of foreign exchange while it is the divergence between the growth rates of exports and imports rather than the absolute levels of growth rates which determine the

movement towards self-reliance. Since the conservation of foreign exchange may imply an import substitution policy, it introduces an anti-export bias in trade policy resulting in the widening of the balance of payments deficits. Export-oriented growth, on the other hand, may lead to higher levels of imports but the increase in exports would more than compensate for an increase in imports and thus accelerate the pace of movement towards self-reliance.

REFERENCES

Chenery, H. B., and A. MacEwan (1965) Optimal Patterns of Growth and Aid: The Case of Pakistan. *The Pakistan Development Review* 7:2.

Griffen, K. B., and J. L. Enos (1970) Foreign Assistance: Objectives and Consequences. *Economic Development and Cultural Change.* April.

Khan, A. H., Lubna Hasan and Afia Malik (1992) Dependency Ratio, Foreign Capital Inflows, and the Rate of Savings in Pakistan. Paper presented at the 8th Annual General Meeting of the Pakistan Society of Development Economists, held at Islamabad from January 7–9.

Mahmood, Zafar, and Mohammad Ali Qasim (1992) Foreign Trade Regime and Savings in Pakistan. Paper presented at the 8th Annual General Meeting of the Pakistan Society of Development Economists, held at Islamabad from January 7–9.

Naqvi, S. N. H. (1971) *The Incubus of Foreign Aid.* Karachi: Pakistan Institute of Development Economics. (Essays in Development Economics No. 2.)

Pakistan, Government of (1965) *The Third Five Year Plan: 1965–70.* Islamabad: Planning Commission.

Pakistan, Government of (1988) *Seventh Five Year Plan: 1978–83.* Islamabad: Planning Commission.

Pakistan, Government of (1991) *Report of the Prime Minister's Committee on Self-Reliance.* Islamabad.

Pakistan, Government of (1991a) *Economic Reforms: November 1990 – September 1991.* Islamabad: Ministry of Finance and Economic Affairs.

Zaman, Arshad (1989) Dimensions of Self-Reliance. *Journal of the Institute of Bankers in Pakistan.* March.