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Foreign Indebtedness and Economic Growth: The Philippines

by Rainer Erbe, Hamburg*

Problems of indebtedness in developing countries are not isolated occurrences. The example of the Philippines, however, is for many reasons a most interesting one. On the one hand, borrowing already once culminated in a debt crisis at the end of the 60s. On the other, the Philippine foreign debt situation has deteriorated faster than that of other highly-indebted countries recently. This article sets out to analyse Philippine borrowing by using an econometric model against the background of the economic policies actually pursued. What are the prospects for the Philippines during the 80s?

The problem as to the limits to international borrowing has different aspects for creditors and debtors. The borrowing country ought to be interested above all in the economic advantages and disadvantages associated with resorting to external resources. The primary question is whether borrowing can speed up the growth of national income. The creditor's main concern, on the other hand, is whether the borrowing country in question is able and willing to meet the debt service due. The country's ability to use borrowed capital for profitable investments, thus inducing accelerated growth, is only one aspect of this. Even if the borrowed capital can be used in a profitable way, crises of indebtedness can still occur if the demands made by the public sector or certain social groups increase disproportionately to the increased national product, and these demands are met at the expense of the foreign creditors, so that contractual interest and principal payments can no longer be met. On the other hand, the use of the borrowed capital for consumption, misdirected private investments or prodigal capital expenditure by the state need not lead to crises of indebtedness, if the debtor country is able and willing to finance the outstanding debt service by cutting back domestic consumption expenditure and/or investment spending.

This article will be centering its attention on the viewpoint of the borrowing country, and thus on the

analysis of growth effects. Looking at the problem from this angle, the capacity of any one particular country to incur debt depends, as it does in a private enterprise, on whether or not it has at its disposal profitable investment opportunities for which returns exceed the costs of borrowing foreign capital¹.

Scope for Borrowing

The costs of borrowing foreign capital primarily comprise the interest charges, which, being one of the items in the balance on current account, can be established with relative exactitude. However, it is not possible to attribute such costs to specific projects. To begin with, due to the fungibility of capital only speculation is possible as to which investment projects would have been dropped had there been no capital imports. Furthermore, thinking in terms of individual projects, to which (seen in terms of the economy as a whole) certain foreign loans are arbitrarily attributed, ignores the fact that such loans need not necessarily increase the total funds available for financing investments. They can induce a country just to lower the amount of national savings. On the other hand, there may quite well be complementary relations between foreign and domestic capital: additional foreign capital could mobilise additional domestic capital, thus creating

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¹ Cf. A. Gutowski: Foreign Indebtedness and Economic Growth: Is there a Limit to Foreign Financing? Paper presented at the Conference of the International Economic Association on Financing Problems of Developing Countries, Buenos Aires, October 1981.

a disproportionately high increase in the overall investment figure². In the former case, the debt-financed transfer of external resources only goes towards making more domestic resources available for additional consumption. In the latter case, presupposing sufficient profitable investment opportunities, additional returns are created, which are not accompanied by additional costs (providing we ignore the opportunity costs of the additional non-consumption). Such macroeconomic effects of the inflow of external resources (which include the effect on the investment structure and/or capital intensity) cannot be adequately covered by analysing individual projects.

Yet even if the borrowed capital, and thus the cost of borrowing, could be attributed to the individual projects, the question of the size of the returns would remain unanswered. Taking into account externalities and/or the distorted structures of commodity and factor prices, the microeconomic returns from individual projects need not correspond to returns on a macroeconomic level. Considering the vast number of investment projects, it would not seem a feasible proposition to want to assess the borrowing capacity of developing countries by using a microeconomic approach, even though profitability calculations could be made for individual projects with the aid of cost-benefit analyses and the use of shadow prices.

Therefore, the question of whether the inflow of external resources was used productively, thus justifying foreign indebtedness, must be tackled on a macroeconomic level. Macroeconomic econometric models can help in this respect. Here, we will use a simple equilibrium model, similar to the one used by Desai³ to assess the productivity of foreign resource inflow to the Soviet Union, to analyse the situation in the Philippines. The Philippines were chosen as an example, since they are interesting in several respects. Firstly, the Philippines are one of the few countries with a relatively low per capita income (1979: approx. US \$ 600) which have borrowed on the international capital markets to a considerable extent. Its foreign debts rose from almost US \$ 2.6 billion at the end of 1973 to approx. US \$ 15.4 billion by September 1981. Secondly, the Philippines already underwent a process of incurring debt during the 60s, which culminated in a debt crisis in

1969/70. This was followed by a period of consolidation up until 1973, which was strongly influenced by the reluctance shown by foreign creditors and by pressure exerted by the IMF. Thirdly, as opposed to other highly-indebted developing countries, the growth of Philippine foreign indebtedness has even accelerated recently. Foreign debts grew from US \$ 11.85 billion at the end of September 1980 to US \$ 15.37 billion by the end of September 1981⁴.

Since econometric analysis, even using more complex models, can only serve to provide a few reference points for an assessment, the model and the associated estimates will be complemented by a non-econometric analysis of the process of indebtedness in the Philippines. Attention will focus on the development strategy pursued and the respective economic policies, both prime determinants of a country's borrowing capacity.

The Model

The starting-point for any model of indebtedness wishing to estimate the returns on foreign resource inflow is a macroeconomic production function. Its estimation not only allows projections of future economic growth to be made using alternative assumptions as to the level of capital imports, but also statements on the development of capital productivity. However, only limited conclusions can be drawn by merely referring to the productivity of the existing or extended (i.e. plus borrowed foreign capital) capital stock, which can be deduced from the production function. Ignoring extreme cases, the estimated values for marginal productivity will, in general, clearly exceed the foreign interest rate, which would make even a substantial expansion of foreign indebtedness seem unproblematic. Since in developing countries the profitable investment opportunities are only likely to be fully utilised in the least number of cases, a high figure for capital productivity would in principle appear plausible. However, one must not forget that the production function reflects the purely quantitative relations between production factors and output, and is therefore not in a position to provide much information on the profitability of capital, for which the development of the relative commodity and factor prices is a determinant factor. In addition, the most common macroeconomic production functions are often incorrectly specified, i.e. they attribute economic growth to only a few factors (labour and capital, with technical progress as a residual factor), ignoring other important

² Cf. on this point, M. Holtus: *Verschuldung und Verschuldungsfähigkeit von Entwicklungsländern (Indebtedness and the Borrowing Capacity of Developing Countries)*, in: *Hamburger Jahrbuch für Wirtschafts- und Gesellschaftspolitik*, Vol. 26 (1981), p. 239-255.

³ Cf. P. Desai: *The Productivity of Foreign Resource Inflow to the Soviet Economy*, in: *American Economic Review*, Vol. 69, No. 2, May 1979, p. 70 ff.

⁴ Cf. *Private Development Corporation of the Philippines, Economical Statistical Series*, Vol. V, No. 5, October 1981.

determinants of economic growth and development (e.g. resource endowment, human capital, social and political framework).

The returns on foreign debts not only depend on capital productivity, but also on the extent to which the borrowed capital is invested or consumed. Crises of indebtedness which are caused by the use of foreign resource inflow for consumption, will be taken into consideration in our model by using suitable savings functions⁵. This particular cause of crisis is likely to be of considerable importance in practice⁶.

The model used here comprises seven equations:

- (1) $Y_t = A \cdot (K_t^+)^{\alpha} \cdot (L_t)^{\beta}$
- (2) $I_t = S_t + F_t$
- (3) $S_t = s_0 + s_1 Y_t + s_2 + s_2 F_t$
- (4) $K_{t+1} = K_t + I_t - D_t$
- (5) $D_t = \delta \cdot K_t^+$
- (6) $K_t^+ = (K_t + K_{t+1}) / 2$
- (7) $L_t = L_0 \cdot e^{\theta t}$

A Cobb-Douglas production function excluding technological progress was chosen⁷. Y_t is the gross domestic product, K_t^+ is the average capital stock in year t , L_t is total employment. t is the period of time in years. The gross investments I_t are determined in the model by the development of national savings S_t and the level of foreign resource inflow⁸ F_t .

Equation (3) – the savings function – is the second central equation in the model. National savings are a function of the gross domestic product and the foreign resource inflow⁹. The insertion of F_t in the savings function is intended to take into account the hypothesis that during certain periods foreign resource inflow led to a reduction in national savings¹⁰.

⁵ This problem is not taken into account by Desai.

⁶ Cf. Charles P. Kindleberger: Debt Situation of the Developing Countries in Historical Perspective (1800-1945), in: Außenwirtschaft, Vol. 36 (1981), No. IV, p. 372-380.

⁷ Primary estimates including technological progress yielded unsatisfactory results for the Philippines.

⁸ The foreign resource inflow is measured here by the current account deficit (including factor payments). In the model this determines the productivity of the total resource inflow; the type of financing (gratuitous transfers, capital imports by foreign direct investors, loans at market terms or at soft terms) is unimportant. This simplification appears justified, since at least during the 70s most of the current account deficit was covered by borrowing.

⁹ The assumption that S_t depends on the gross domestic product, and not – as would have been more correct – on the gross national product, can be justified by practical considerations. Since the production function describes the development of the gross domestic product, to make savings dependent on the gross national product would require an extensive subsystem to calculate the development of the factor payments from and to abroad (the difference between GDP and GNP). Since in the Philippines GNP and GDP have witnessed a parallel development in the past and the absolute differences were very small, this would seem unnecessary.

The relations between capital stock growth, investments and depreciations are reflected in equations (4) - (6). K_t represents the capital stock at the beginning of each year, D_t stands for the depreciation in the year t , and δ is the depreciation ratio. Equation (7) describes the development of employment which is given exogenously via the growth rate θ .

In as much as the initial capital stock and the development of employment are given, the above equation system determines the development of Y_t , S_t , I_t , etc. only in dependence on the level of foreign resource inflow. In order to calculate the additional growth associated with the foreign resource inflow, the development of Y_t over time is calculated using varying assumptions concerning the level of F_t . The additional gross domestic product which thus emerges in comparison with the situation without resource inflow ($F_t = 0$), represents the gross returns to foreign resource inflow. This figure must be adjusted to account for the depreciation of the additionally formed capital stock and for the interest payments to foreign creditors. If the remainder is positive, the net national product of the borrowing country is greater with foreign indebtedness than if the country had decided not to borrow foreign capital.

The parameters required for the simulations were calculated for the period 1970-79. The reason for not taking the whole period 1956-79 for which statistical data were available¹¹, was a noticeable structural break towards the end of the 60s. The calculation of the production function in logarithmic form for the period 1970-79 provided the following result¹².

$$(1.1) \log Y = 0.251 + 0.613 \log K^+ + 0.311 \log L$$

$$(5.3) \quad (1.1)$$

$$R^2 = 0.995 \quad DW = 1.64$$

The savings function for the period 1970-79 is as follows:

$$(3.1) S = -11.868 + 0.342Y - 0.252F \quad R^2 = 0.952$$

$$(8.7) \quad (1.2) \quad DW = 0.96$$

¹⁰ Cf. on the problem of substitution, e.g., P. Mosley: Aid, Savings and Growth Revisited, in: Oxford Bulletin of Economics and Statistics, Vol. 42, No. 2, 1980; G.F. Papanek: The Effect of Aid and Other Resource Transfers on Savings and Growth in Less Developed Countries, in: The Economic Journal, Vol. 82, No. 327, 1972; T. Weiskopf: The Impact of Foreign Capital Inflow on Domestic Savings in Underdeveloped Countries, in: Journal of International Economics, Vol. 2, No. 1, 1972.

¹¹ Data on employment were taken from the Philippine Yearbook. The other data were found in publications by the UN and the IMF. The initial capital stock was estimated for 1956 and then extrapolated using a time series of gross investments and a depreciation ratio of 5 %. The depreciations obtained via this method were in line with the amounts registered in the national accounts.

¹² The figures in brackets represent the t-values of the corresponding parameters.

For comparative purposes, an additional savings function was calculated which was only dependent on income:

$$(3.2) S = -8.912 + 0.306Y \quad R^2 = 0.942 \\ (11.4) \quad DW = 1.41$$

Following the calculation of the parameters, simulations were carried out using the model described. The most important results are presented in Table 2. First of all, an ex-post forecast was carried out for the 70s, using the actual resource inflow. Then a comparative calculation was carried out assuming zero resource inflow. The remaining initial conditions (capital stock at the start of the period, employment development) were the same in both cases. The model described the actual development extremely well. The difference between actual and forecast GDP ranged from 0.1 % (1976) to 3.0 % (1972) using the savings function (3.1), and from 0.1 % (1976) to 3.1 % (1972) using the simple savings function dependent on income. For 1980, the first year for which the data were not included for estimating the parameters, the deviation amounted to 1.5 % or 1.2 %. The calculations indicate that the average annual GDP growth rate during 1970-79 increased to the tune of about one percentage point as a result of borrowing foreign resources.

Table 1
Philippines: Economic Development

Year	GNP (in billion pesos at 1975 con- stant prices)	Gross national savings (as % of GDP)	Gross domestic investment (as % of GDP)	Balance on current account (in million US \$)	External debt (in million US \$)
1960	50.27	13.7	15.9	-144	
1961	53.76	14.9	17.7	-161	
1962	56.72	15.0	17.7	-62	
1963	60.66	19.7	19.2	+104	
1964	62.74	19.2	21.0	-24	
1965	65.89	20.3	20.8	+23	721.7
1966	68.76	20.7	19.7	+50	768.1
1967	72.07	18.1	20.9	-228	1,269.5
1968	75.93	17.2	21.5	-401	1,634.2
1969	79.98	16.1	20.4	-408	1,686.0
1970	83.42	19.2	21.2	-167	2,168.0
1971	88.24	19.0	20.9	-136	2,339.0
1972	92.58	18.8	20.6	-181	2,457.0
1973	101.51	24.8	21.5	+244	2,580.0
1974	107.94	24.1	26.9	-484	3,225.0
1975	114.26	24.0	31.1	-1,241	4,097.0
1976	121.24	23.4	30.7	-1,373	5,801.0
1977	129.70	24.4	28.8	-1,089	6,562.7
1978	138.50	22.8	28.8	-1,465	8,001.2
1979	146.94	23.3	29.3	-1,921	9,616.6
1980	154.94	23.9	30.3	-2,489	11,800.0 ^a

^a External debt at the end of Sept. 1980.

Sources: IMF, International Financial Statistics; Philippine Financial Statistics, various volumes.

Further simulations were carried out for the period 1979-90, assuming alternative resource inflows of (at 1975 constant prices) zero, four and eight billion pesos per annum (cf. Table 2)¹³. Results showed that, taking these assumptions, capital productivity at the end of the 80s will figure at 24-25 % (as compared with 32 % at the end of the 70s). The diminishing capital productivity (additional output in relation to additional capital stock) automatically results from the production function (decreasing returns to scale, increasing capital intensity). Taking an interest rate on foreign loans of 10 %¹⁴, and a depreciation ratio of 5 %, a sufficient net return for the economy as a whole would still seem certain.

The development of the quantity described here as the "productivity of foreign resource inflow" (additional output in relation to total net borrowing) is particularly informative. Although this also drops during the 80s, it does so to a much lesser extent (by about three percentage points) than capital productivity (about seven percentage points). This is due to the fact that borrowing induces indirect growth effects, if the resulting acceleration in income growth leads to increased national savings, which in their turn lead to an increased investment ratio and thus to increased growth. Therefore, in order to assess the growth effects of borrowing – and thus the borrowing capacity of the country in question – the propensity to save is just as important as estimates of possible substitution effects¹⁵.

Finally, the simulations for the 80s show an increase in the average savings ratio of three to four and a half percentage points. Together with the assumed decrease in net borrowing (in relation to GDP) this means an overall stagnant investment ratio during the 80s. This development more or less corresponds to the Philippine five-year plan for 1983-87. The model's results are a first, and for the Philippines a positive, sign of the country's ability to employ foreign capital productively. However, since – as mentioned above – this must be examined and complemented by other indicators, we will briefly describe the economic development during the 60s before entering into further analysis.

¹³ During the 70s the average annual resource inflow came to about 4 billion pesos.

¹⁴ In 1979 the average interest rate for the Philippines in borrowing arrangements with public agencies was 5.5 %, whereas private creditors demanded on average 10.4 % (source: World Debt Tables 1980).

¹⁵ Cf. on this point, E. Grinols and J. Bhagwati: Foreign Capital, Savings and Dependence, in: The Review of Economics and Statistics, Vol. 58, 1976, p. 416-424.

Economic Development before 1970

The development of the Philippine economy after 1960 was characterised by the gradual slowing-down of growth impulses induced by the import substitution policy pursued since 1949. This policy had brought about a rapid change in the import structure during the 50s. The setting-up of domestic consumer goods industries cut back imports of consumer goods. However, there was a corresponding increase in the import requirements of raw materials, semi-finished goods and capital goods. These accounted for approx. 85 % of imports during the 60s. At the same time, the traditional export sector stagnated due to an increasing overvaluation of the peso. This led to a gradual growth of Philippine foreign debts, which picked up momentum as of 1967 and culminated in a debt crisis in 1969/70. Foreign liabilities soared from approx. US \$ 175 million at the end of 1960 to US \$ 770 million at the end of 1967, moving to US \$ 2.2 billion by the end of 1970.

The weak points, and the misallocation of resources, in the Philippine economy caused by protectionism became more and more apparent. The distortion of relative factor and commodity prices had an adverse effect on the efficiency of capital. The proliferation of

protectionist measures created additional scope for cost and price increases in the protected sectors, favouring poor management and poor product quality. This reduced competitiveness against foreign countries even further. The artificial cheapening of the production factor capital resulted in a trend toward capital-intensive production techniques and large projects, which were often faced with inadequate capacity utilisation due to the limited domestic market and the lack of export opportunities. As a result of the lack of investments in industries at an earlier stage of the production chain and excess capacities in the attractive consumer goods sector, protected by customs duties and import bans, combined with the stagnation of the export sector discriminated by economic policy, any further growth in the Philippines was closely linked with increasing current account deficits and growing foreign indebtedness. Inasmuch as borrowing served to import additional inputs for industry, it enabled a short-term production increase to be achieved. However, the growth and employment effects of the improved capacity utilisation in the consumer goods sector remained negligible. Considering the substantial share of imported intermediate inputs in the final output, it is only a slight exaggeration to say that it basically would

Table 2
Summary of the Simulation Results

	Level of Foreign Resource Inflow (in billion pesos at 1975 prices)				
	0	actual inflow ^c	0	4	8
	1970-79		1979-90		
A. $S = -11.868 + 0.342 Y - 0.252 F$					
1. Average annual growth rate of GDP (in %)	6.23	7.12	5.93	6.29	6.63
2. Average annual growth rate of NNP in % (interest rate 8 %)	6.04	6.49	5.71	5.83	5.97
3. Marginal productivity of additional capital stock ^a (in %)	—	32.5	—	24.6	24.3
4. Marginal productivity of foreign resource inflow ^b (in %)	—	23.0	—	20.7	20.4
5. Average investment ratio at the end of the period (share of GDP)	0.257	0.305	0.297	0.310	0.321
6. Average propensity to save at the end of the period (share of GDP)	0.257	0.249	0.297	0.295	0.293
B. $S = -8.912 + 0.306 Y$					
1. Average annual growth rate of GDP (in %)	5.93	7.11	5.40	5.90	6.36
2. Average annual growth rate of NNP in % (interest rate 8 %)	5.74	6.48	5.21	5.48	5.72
3. Marginal productivity of additional capital stock ^a (in %)	—	32.7	—	25.3	24.9
4. Marginal productivity of foreign resource inflow ^b (in %)	—	29.9	—	27.2	26.6
5. Average investment ratio at the end of the period (share of GDP)	0.241	0.303	0.270	0.288	0.303
6. Average propensity to save at the end of the period (share of GDP)	0.241	0.247	0.270	0.272	0.274

^a Additional output in final year as a proportion of additional capital stock in final year.

^b Additional output in final year as a proportion of accumulated resource inflow for the entire period.

^c Measured by deficit on the balance on current account.

have made no difference if the borrowed foreign capital had been used directly for imports of consumer goods. Since an accompanying change in economic policy, which could at least have adjusted the distorted prices so as to enable the necessary adjustments in the investment, production and foreign trade structures to be carried out, was lacking, borrowing foreign capital amounted to merely propping up an intolerable situation. Any change in direction, however, was blocked by powerful pressure groups, such as importers and industrialists, who had benefitted from such policies. Therefore, the most obvious policy measure in such a situation, the devaluation of the overvalued peso, was not implemented.

This constellation prevented the Philippines from pursuing a successful growth-cum-debt process in the 60s, since the necessary, appropriate economic policy was missing. The factor which triggered off the balance-of-payments and debt crisis at the end of the 60s, at a time when the level of debts was still relatively low, was the lack of debt management. The monetary authorities lacked exact information on the extent and the terms of foreign liabilities, deficits were being financed more and more on a short-term basis, and the volume of repayment obligations increased rapidly. In addition, a dubious monetary and fiscal policy as of 1969 led increasingly to a policy of wait-and-see amongst foreign creditors.

Investive Use of Foreign Resource Inflow?

In addition to the equations needed for the simulations, savings functions were calculated for the period 1956-69, so as to obtain additional information on the use of foreign resource inflow. This led to the following equations:

$$(3.3) \quad S = -5.520 + 0.284 Y - 1.077 F \quad R^2 = 0.976 \\ (21.1) \quad (8.2) \quad DW = 1.99$$

$$(3.4) \quad S = -3.805 + 0.234 Y \quad R^2 = 0.830 \\ (7.7) \quad DW = 0.91$$

A comparison between the savings functions calculated for the various periods revealed the following:

□ During the period 1956-69 borrowing was overcompensated for by a reduction in national savings (cf. savings function 3.3).

□ During the 70s, on the other hand, the negative correlation between foreign resource inflow and national savings is quite clearly weaker and statistically less certain (cf. equation 3.1).

□ With regard to the period 1956-69, the savings function which includes foreign resource inflow (equation 3.3) explains – as the correlation coefficient shows – the development of national savings much better than the savings function which depends only on income (equation 3.4).

□ During the 70s there was a considerable increase in the marginal propensity to save.

Against the background of the economic development and the economic policies of the 60s, the question as to whether savings function (3.3) can be interpreted as a sign of the fact that foreign capital inflow during the 60s was the cause of the increase in the propensity to consume must – with reservations – be answered in the affirmative. The accelerated increase in borrowing of foreign capital during and immediately following electoral campaigns would point in this direction. On the one hand, import licences were generously handed out immediately before elections, which forced the Central Bank with its low level of currency reserves to borrow substantial amounts of foreign capital. These import licences directly or indirectly (via domestic consumer goods production) induced an expansion of domestic consumption. On the other hand, the vast and expansive fiscal policies and the associated increase in budgetary deficits – particularly during the presidential elections in 1969 – were also financed in part by resorting to foreign capital. Borrowing in this case enabled a direct increase in public consumption expenditure and/or replaced tax increases.

However, an explanation which only takes the substitution effect into account must remain unsatisfactory. It is reasonable to expect a third determinant factor for the negative correlation between national savings and foreign resource inflow, one which is not included in the savings function: governmental monetary and credit policies¹⁶. Interest rates, which were kept artificially low, undermined the propensity to save, brought down the savings ratio, and finally restricted the lending capacities of the banking sector, leaving foreign borrowing as the only answer. The substitution effect was thus complemented by a compensatory effect: foreign capital inflow compensated for the drop in national savings.

The lessening of the negative correlation between national savings and capital inflows during the 70s was probably above all due to changes in fiscal policies. The share of taxes, for example, in the national product

¹⁶ Cf. e.g. International Labour Office: *Sharing in Development*, Geneva 1974, p. 227 ff.

increased following reforms of the taxation system, from approx. 9 % in 1970 to over 12 % in 1976. Tax revenue therefore grew slightly more than governmental consumption, so that public borrowing could be channelled in full total into public investments. The public investment ratio (as % of GNP) increased between 1970 and 1976 from 1.5 % to approx. 6 %¹⁷.

The increase in the marginal propensity to save also reflects the reduction in the share of private consumption in GNP and is most probably due to an income redistribution to the benefit of those groups with a greater propensity to save. Firms' savings and – despite the continuation of low interest rate policies – savings by private households grew until the mid-70s. Afterwards national savings stagnated at 23-24 % of GNP (cf. Table 1). The further increase in foreign resource inflow during the second half of the 70s (up to 6 % of GDP per year) did not therefore bring about any noticeable drop in the propensity to save. As opposed to the situation during the 60s, this would indicate that the borrowed foreign capital was used for investment.

Economic Development during the 70s

A closer look at the link between foreign indebtedness and economic growth during the 70s reveals that, with an average annual GDP growth rate of about 6.5 % between 1970 and 1979, the situation was better than during the previous decade (1960-70: 5.1 %). Those model calculations carried out for the 70s which assumed a zero resource inflow registered growth rates of about 6 %. This would suggest that economic growth would have accelerated during the 70s even without borrowed foreign capital. Not only this, this average growth rate also indicates that a considerable amount of the additional growth can be attributed to greater domestic efforts – in the form of higher national savings and more consistent economic policies, at least in certain areas. The growth successes of the 70s might well have been even greater, if the greater degree of domestic efforts and the increase in resource inflows had not at the same time been counteracted by the oil-price induced deterioration in the terms of trade.

As regards the short-term effects, the borrowing of foreign capital not only positively affected growth via the increase in capital stock, but also prevented the Philippines, which covered 95 % of its energy requirements with oil imports, from substantial losses in growth, which would otherwise necessarily have accompanied an abrupt decrease in imports made

necessary by a shortage of foreign exchange. In the medium and long terms, foreign capital created the leeway necessary to carry out the required adjustments in the structure of investment, production and foreign trade. The long-term effects of foreign debts on growth will depend on whether this leeway is properly used. A few points would indicate that the process of incurring debts during the 70s took place under more favourable conditions than that of the previous decade. In particular, appropriate steps were taken following the mistakes made during the first phase of indebtedness (e.g. floating the currency, increased export promotion). Apart from this, there is a more effective debt management. Tax reforms and an increase in public investments in infrastructure would point towards a greater willingness this time on the part of the authorities to encourage growth and development.

However, the question must be raised as to whether the government's economic policy is laying the emphasis correctly. Whereas the Philippines pin their hopes for the creation of new export sectors on support by foreign investors and on the setting-up of free industrial zones¹⁸ (which, however, require considerable infrastructure investments), most of the capital still flows into capital-intensive import substitution projects. The traditional preferences demonstrated by Philippine politicians would seem to outweigh a rational concept for the economy as a whole. As regards these capital-intensive investments, the most decisive factor will be whether they can become profitable (on an international level) and competitive in the long run, and not just survive because of prohibitive customs duties. There are already doubts with regard to the profitability of some of the import substitution projects being carried out in industries at an earlier stage in the production chain; others need a long time before yielding returns. The practice which continued throughout the 70s of controlling the use of capital via credit rationing while holding interest rates artificially low instead of using the interest rate itself as a means of control, may also have led to the misallocation of resources.

Conclusions for the 80s

The model calculations for the 80s are to be seen against this background. As regards the savings and investment ratios, growth rates and capital productivity, calculations predict a quite favourable economic development for the Philippines during the 80s. The international context, but above all developments in the

¹⁷ Cf. Asian Development Bank: Economic Report on the Philippines, March 1978.

¹⁸ Cf. e.g. interview with the Philippine Minister for Industrial Affairs, Roberto V. Ongpin, in: *Wirtschaftswoche*, Nr. 12, March 13, 1981, p. 24.

Philippine economy and Philippine economic policies during the past few years, would suggest a few adjustments to this "optimistic" scenario – which is basically just an extrapolation of developments during the 70s.

Firstly, the assumptions relating to capital productivity could well prove too optimistic. The capital-output ratio, which was quite high during the 60s, increased even more during the 70s. The investment structure in recent years, and present Philippine development planning, indicate a continuation of this trend. A large part of capital resources has been, and continues to be, invested in just a few large, capital-intensive projects, some of which take a long time to mature. Alongside investments in infrastructure and in the energy sector, attention centres on large import substitution projects (e.g. in the chemicals and heavy industries). Further economic development will depend on whether such projects turn out to be profitable enough. If the debt-financed industrialisation initiated during the 70s proves to be unprofitable and not internationally competitive, the result would be a definite drop in capital productivity for the economy as a whole.

Secondly, it would seem very doubtful whether the high investment and savings ratios reached during the 70s, which form the basis of projections for the 80s, can in fact be maintained or even increased. A whole set of factors were responsible for the jump in investments after 1973:

- ☐ The political situation in the Philippines became more stable following the declaration of martial law in 1972.
- ☐ Stabilisation measures effected in the wake of the balance-of-payments crisis in 1970 and the imposition of martial law in 1972 brought about a substantial decrease in real earnings. The index of skilled workers' earnings dropped from 123.3 in 1969 to 75.6 in 1974 (1972 = 100)¹⁹.
- ☐ The real interest rate for domestic borrowers fell even further compared with the 60s, becoming clearly negative.
- ☐ Finally, following 1974 there was an increase in the government investment ratio, which grew from approx. 2 % during the 60s to approx. 6.5 % of GDP in 1978.

The constellation which existed during the 70s is hardly likely to repeat itself during the 80s. The extremely uneven distribution of income and property will probably lead to an intensification of struggles over

the distribution of factor incomes. The increasing social and political problems at home – partly a result of the marginal employment effects of the development strategy pursued – are not going to improve the framework for investments.

Thirdly, following the two oil-price shocks, the country is now being hit by an "interest rate shock". If the high nominal and real interest rates turn out to be a permanent feature of the 80s, this would have its effects on the Philippine economy. The Philippines are trying to compensate for the increasing costs of imported capital by exporting labour. Up to now this strategy did indeed bear fruit – the vast increase in transfers by workers abroad do a great deal to improve the balance of payments. However, whether this strategy is a viable one in the long run, particularly considering the costs to the national economy of the emigration of skilled workers, appears doubtful.

Fourthly, the present investment strategy, which still places its emphasis on import substitution, induces considerable production detours, thus extending the necessary growth-cum-debt process. Such detours, which push the chance of achieving equilibrium on the balance on current account into the distant future, enhance the risk of greater indebtedness. The longer the period of dependency on foreign resource transfer, the greater the danger of the development process having to be interrupted before it is completed. This is a definite danger in the case of the Philippines, since there is a trend towards international banks basing the granting of credits to highly-indebted countries more and more on the level of repayments. The already existing foreign indebtedness and the substantial and increasing deficits in foreign trade might well induce creditors to be more wary – also because of the lack of attention paid by government policy to export-oriented branches.

Further development will therefore depend on whether governmental economic planners can make up their minds to direct more resources towards the immediately export-oriented sectors. Increased investments in labour-intensive, export-oriented industries would not only bring down the current account deficits in the medium term, but also decrease capital requirements. Growth could remain at the same level and the extent of new borrowing could be reduced. It seems that the borrowing of foreign capital by the Philippines, which did not present any great problems up to now, has led this country onto a more capital-intensive path of development than would have been the case had the possibilities of access to foreign resources been more limited.

¹⁹ Cf. Central Bank of the Philippines: Statistical Bulletin, Vol. XXX, 1978.