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STABILIZATION AND ADJUSTMENT POLICIES AND PROGRAMMES

# COUNTRY STUDY 2 THE PHILIPPINES

MANUEL F MONTES

WORLD INSTITUTE FOR DEVELOPMENT ECONOMICS RESEARCH OF THE UNITED NATIONS UNIVERSITY

### STABILIZATION AND ADJUSTMENT POLICIES AND PROGRAMMES

RESEARCH ADVISERS: Professors Lance Taylor

and G K Helleiner

COUNTRY STUDY: THE PHILIPPINES

Author: Manuel F Montes

University of the Philippines

Quezon City The Philippines

#### WORLD INSTITUTE FOR DEVELOPMENT ECONOMICS RESEARCH Lal Jayawardena, Director

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#### PREFACE BY THE DIRECTOR

This monograph is part of a series being published by WIDER on the experience of developing countries with stabilization and adjustment programmes in the 1970s and 1980s. Each study analyzes the package of policies implemented by a specific country; its relations with the IMF and World Bank; the effects of the policies on production, employment, the balance of payments and social welfare; and what other policies might have been followed instead.

The intention of the series is to assist developing countries to devise adjustment policies that would, while accomplishing desirable adjustment and growth objectives, simultaneously remain politically viable in the particular country settings studied.

For this purpose it was thought desirable to explore policy alternatives to the adjustment programmes being implemented. Built into the design of the series, therefore – and constituting indeed its special feature – is the requirement that each study include a 'counterfactual' exercise to illustrate the effects of alternative policies. Utilizing econometric models adapted or specifically developed for each country, the probable effects of alternative policy packages are estimated; the object was to see how far the balance-of-payments adjustment and growth goals of a particular programme might have been achieved at a possibly lower social cost with a different policy mix.

Each country study is written by an independent scholar and expert in the relevant country. First drafts of the studies in this series were discussed at the WIDER conference on stabilization and adjustment policies in developing countries which was held 19-22 August, 1986 in Helsinki. Each study has been reviewed by WIDER's research advisers for the project, Professors Gerry Helleiner and Lance Taylor, and revised substantively by the author as necessary; subsequent editing has been conducted under the overall supervision of Mr Robert Pringle, Senior Fellow, who serves also as editorial adviser on WIDER publications.

A companion volume by Professor Taylor summarizing the experience of the countries surveyed will draw broader implications for the theory and practice of stabilization and adjustment policies; this volume will be published by Oxford University Press. The individual country studies in this series will subsequently be grouped into separate volumes, also for eventual publication by Oxford University Press.

Lal Jayawardena Director March 1987

#### EXECUTIVE SUMMARY

From 1984 until its fall in February 1986 the Marcos government attempted to implement a standard IMF-type stabilization and adjustment programme. In some respects the programme was startlingly successful: inflation was brought under control and the payments deficit was eliminated. But, this searching analysis shows. Marcos left a bitter legacy to the new Aquino government in the shape of unmanageable foreign debt burden, a chaotic financial and banking system and an economy that was on its knees. external adjustment had taken place entirely by means of a fall in imports rather than an expansion of exports - which also fell during a period when most developing countries' exports were booming. The adjustment period thus completely failed to lay the basis for renewed growth; rather, it perhaps fatally weakened the engines of growth in Philippine economy.

The IMF and World Bank share responsibility for this poor record with the Marcos government. They consistently supported the government with new loans and standby agreements despite clear evidence that it did not have the will or capability to carry out the longer-term structural were necessary to strengthen that productive capacity and the efficiency of the economy. international institutions turned a blind eye to the obvious fact that the nature of the political support for the regime drained the reform programme of any substantive content, however good it looked on paper. They did not apparently even realize that the official figures understated the country's foreign debt by some \$8 billion.

Adjustment should have begun much earlier - in 1980 rather than with the payments crisis of 1983. Adjustment was postponed partly because of the support of the international financial community of the Marcos government. When it did start in 1983 it did not tackle the most important issues - the domestic financial crisis, the budget and the foreign debt. Instead, it relied entirely on devaluation and sharp monetary contraction with their predictable accompaniment of soaring interest rates and plunging economic activity. The human suffering occasioned by this misguided strategy will be felt at least to the end of this century.

The balance-of-payments crisis which erupted in October 1983 is the fourth since the United States relinquished direct administrative control of the Philippines to a domestic elite in 1946. This paper is an analysis of the adjustment programme carried out in response to that crisis.

The first section is a discussion of the main macroeconomic features of the Philippine economy. The second section is an account of the adjustment programme carried out from 1983 to the end of 1985. The third section provides an assessment of the adjustment programme and the fourth suggests some policy alternatives to the actual adjustment programme that had been carried out.

This paper was prepared for the United Nations University/WIDER project on stabilization and adjustment programmes and policies in developing countries and the role of international financial institutions. Comments from Lance Taylor, Gerald Helleiner, José Pablo Arellano and Basil Kavalski are gratefully acknowledged. Carlos Bautista provided competent research assistance and Throadia Santos, excellent secretarial assistance. The author is responsible for all errors and opinions in the paper.

Manuel F. Montes University of the Philippines

#### I. THE ECONOMY 1949-83: A CAPSULE HISTORY

This capsule history will be organized around the four balance-of-payments crises that the country has experienced since 1946 - those of 1949, 1962, 1970 and 1983.

#### 1. 1949 crisis and import substitution

1949 balance-of-payments crisis marked the war rehabilitation that exhaustion of the funds the used to finance deficit Philippines had а an international trade dominated by agricultural exports and manufactured imports - a pattern carried over from the colonial period. This first crisis forced the government to take more responsibility for the management of the economy. central bank was created and а period οſ substitution, which lasted until the second crisis, inaugurated.

The import substitution regime of import controls and high tariffs saw GDP growing by an average of 6.2 per cent annually from 1949 to 1962 and gross domestic capital formation by an average of 7.0 per cent per year. dominance of finished products in the import structure was by intermediate industrial inputs. The created a manufacturing sector dominated by final processing and packing industries, many of these by US corporations under a treaty that extended national rights to US citizens. Export earnings continued to rely heavily on agricultural and extractive goods while foreign exchange needs increased rapidly, due to heightened demand for imports and the profit remittances of US companies. This led to:

#### 2. The 1962 crisis

The 1962 crisis laid bare the unsustainability of the import substitution strategy as then implemented. The IMF adjustment programme in that year involved a 50 per cent devaluation of the Philippine peso and the dismantling of

the import control system. Merchandise exports, now significantly augmented by the exports of mineral products (such as copper concentrates) and logs, grew by 30.8 per cent in 1963 and by an average of 4.4 per cent per year until 1967 when exports began to stagnate again. In this period the growth rate of GDP fell to 5.1 per cent per year while the population growth rate increased to 3.0 per cent per year. Overspending by the government occasioned by the 1969 re-election campaign of Mr. Marcos precipitated the third balance-of-payments crisis in 1970.

#### 3. The 1970 crisis and debt-driven growth

The 1970 IMF-sponsored adjustment programme required a 43 per cent devaluation and the reduction in selected tariff rates. The reforms effectively brought to an end a brief and half-hearted flirtation with export-led growth. The reality of 'export-led' growth was the diversification of exports toward other primary products, especially lumber, but not toward labour-absorbing manufactured goods. The rhetoric continued to stress 'export-led growth'. This could not be since the country's economic management was within successive IMF standby arrangements. However, the peso became increasingly overvalued - made possible, ironically, by the consistent support given by the IMF and the World Bank to the country's economic management. support of these organizations, coupled with installation of the Marcos government in 1972, gave country almost unlimited access to foreign savings in decade of the 1970s.(1) It would not be inaccurate to say that the country enjoyed a foreign exchange bonanza during the decade.

The real effective exchange rate appreciated by 18.1 per cent between 1972 and 1982 (see Table 1.1 and Pante (1983)). There was an apparent export diversification as the share of so-called non-traditional exports increased from 18.7 per cent in 1983 to 55.4 per cent in 1978 and 61.2 per cent in 1973 (Table 1.2) But this was not accompanied by

changes in the domestic manufacturing sector. Alburo (1985) shows that in the same period, the ratio of manufacturing value-added to real domestic a product stayed flat at about 23 per cent and the real growth rate of manufacturing was falling. Export 'diversification' depended heavily on products whose domestic value added was very small - especially electronic chips and garments.

The extent of capital flight during this foreign exchange bonanza became apparent only when the crisis struck in 1983 and even then only after a thorough accounting. The sum of current account deficits from 1970 through 1983 was \$15.3 billion. In September 1983, the officially reported figure for the total foreign debt was \$16.3 billion, suggesting a relatively small capital flight of only \$0.9 billion. The latter figure was also not very far from an estimate based on the sum of errors and omissions of \$1.0 billion from 1970 to 1982.

The fact that the central bank had been borrowing heavily on a short-term basis on its own account, principally to finance oil imports (2), became public only in November 1983 when the total external debt of the country was reported to be \$24.8 billion. Compared to the sum of current account deficits since 1970, the new figure implied a capital flight of \$9.3 billion, about 37.5 per cent of the external debt.

Slayton and Thompson (1985) document how the authoritarian government consistently failed to achieve the programme targets during this period in the late 1970s and early 1980s. But the IMF nevertheless agreed to a new standby programme.

The recovery of the GDP growth rate to 5.7 per cent was driven not by export growth, nor by domestic structural reforms, but by foreign borrowing. For this reason, it is useful to refer to the period as the period of debt-driven growth.

The trade surplus experienced in 1973 as a result of the commodity boom in that year turned into deficit in the following year, the year of the first oil shock. The seemingly good export performance in the years when no recessions were occurring in the First World masks the fact that net exports continued to depend heavily on agricultural and primary products. The growth in non-traditional exports induced increased imports of necessary inputs whose domestic production had not been provided for in the earlier import-substitution era.

Due to the poor investment policies of the Marcos regime (see De Dios (1984)), the accompanying capital inflow did not materially change the structure of the economy from that inherited from the end of the import-substitution period. In fact prospects for growth had worsened because there was now a higher capital-output ratio (from 4 before 1980 to approximately 10 for 1980-83) and a higher level of foreign debt (4.9 times merchandise exports in 1982). Table 1.4 provides the distribution of the foreign debt of the Philippines when the balance-of-payments crisis began in 1983.

The outstanding external debt in October 1983 at the start of the 1983 crisis was 72.7 per cent of GNP. The debt service ratio was 35.7 per cent. Of the total debt, 37.4 per cent was short-term and 60.0 per cent was owed to commercial banks. The public sector had been the borrower for 48.2 per cent of the debt and the central bank had been the borrower for an additional 16.4 per cent.

The 1983 balance-of-payments crisis signalled the end of the debt-driven growth period, an end which can be blamed not only on the drying up of inexpensive international credit, which affected all countries, but also to the failure of the investment strategy in the previous period to carry out internal changes in the economy.

We now briefly describe the structure of the economy.

#### 4. Principal characteristics of the Philippine economy

#### (a) Output and demand

Agriculture produces 26 per cent of GDP and is dominated by tenancy-based production. Population pressure has also generated significant numbers of landless agricultural workers in the rural areas. Agricultural products are of two kinds: (i) products that are primarily for domestic consumption such as rice, corn, and vegetables and (ii) products for exports, notably coconut products and sugar.

In the period leading up to the crisis, agriculture suffered from unfavourable terms of trade vis-a-vis industry (see David (1983) and Table 1.5), low incomes and low productivity growth of peasants.

The country achieved rice self-sufficiency in the 1970s with the diffusion of high yielding (fertilizer and pesticide dependent) rice varieties, but continued population pressure could endanger self-sufficiency in the future. The country is only barely self-sufficient in food.

The subsidy coming from agriculture into other sectors was increased by the government's fertilizer policy. This priced fertilizer so that the capital costs of locally-produced fertilizer could be recovered. Between 1973 and 1980, farmers paid about 10 per cent over the border price for fertilizer (David and Balisacan (1982)).

Export agriculture became heavily monopsonized as the Marcos government introduced government-mandated but privately-controlled monopoly marketing operations in the coconut and the sugar industries. Intervention in these old export industries under Marcos was publicly justified by the need to improve productivity. It was hoped that resources raised from monopoly profits and export taxes would be

applied to productivity raising programmes. In the event, these resources were appropriated by persons close to the Marcos administration for political purposes and for the purchase of monopoly enterprises in other economic areas.

the case of the coconut industry, for example, Tn raised through a 'levy' collected were from coconut farmers under the auspices of the Philippine Coconut private fund. Because of Authority into а substitutability against coconut oil in world markets, the incidence of the levy fell on domestic farmers (see Clarete and Roumasset (1983)). In law, the fund was private owned by the country's coconut farmers; in practice, a small group controlled the funds into which a total of P9.7 billion (about \$1.3 billion at the prevailing exchange rates) collected between August 1973 and August 1982.

Of this amount P2.6 billion was used to gain monopoly control of domestic milling capacity which was then applied to lowering farmgate prices for copra, further reducing the incomes of coconut farmers. P2.1 billion was applied to various social amelioration projects for coconut farmers and only P1.1 billion went to the planting of hybrid seednuts. Part of the rest went for charity projects but the greater proportion was used to purchase a private commercial bank, which immediately grew to one of the nation's because the levy funds were deposited in the bank at no interest. In 1984, the resources of the bank were applied to purchase of the country's largest corporation.(3)

The agricultural sector is also characterized by backward production methods, low productivity, and a low rate of reinvestment. In rice, 1984 Philippine yields were 2.5 metric tons per hectare compared to the Asian average of 3.3; sugar yields 48.1 metric tons per hectare while the international average is 58.0. In 1979, twenty-five per cent of palms were over 60 years old and therefore 700,000 hectares were due for replanting.(4)

In the short-run, agricultural production is highly determined by the availability of credit to the sector. This is true for crops for local production and also for sugar.

Industry accounts for 34 per cent of GDP. Industrial firms, heavily dependent on intermediate imports, typically enjoy oligopolistic positions in domestic markets. Such a structure was inherited from the golden years of import substitution. The oligopolistic structure was reproduced through tax incentives, quantitative restrictions and exchange rate appreciation.

Using estimates based on 1974 input-output tables, the range of effective protection rates varied greatly from 49 to 200 per cent (Tan (1979)). Using an index of 100 for the least protected sector, agriculture and primary products had an index of 100, manufacturing an index of 489, and all sectors had an index of 400. Within the manufacturing sector, final consumption products had an index of 481 while construction had an index of 100. If exportables have an index of 100, then non-exportables would have an index 1525.

Bautista (1981) studied the correlation between the effective protection rate (EPR), the ratio of employment in to total manufacturing sector employment, latter within-industry concentration. the measured indirectly from the proportion of establishments in Metro Manila (Table 1.5). Meat processing, for example, has an EPR of 635.1 while employing only 2.2 per cent of manufacturing employment. Fabricated metal products have a negative EPR of 10.3 per cent while employing 15 per cent of manufacturing workers.

Notable export-oriented exceptions are garments and semiconductor manufacturing. As noted earlier, the domestic value-added in these products are minimal. Moreover, garments have been subject to quotas in the US market which have not only bred local oligopsonists in the industry but have also prevented a dynamic response to exchange rate

incentives in this labour intensive sector. Export-oriented mining contributes about 1 per cent to GDP.

Because of the long history of protection for finished products, the greater part of industrialized output cannot be classified as tradeables. Gonzalez (1984) estimates that in 1982, 71 per cent of gross domestic product would be classified as non-tradeables, 12.3 per cent would exportables and 16.7 per cent as importables (Table 1.6). For example, companies produced cars five manufacturing car programme. In studies conducted at the Tariff Commission, however, it was shown that, especially for Japanese cars, these companies were using imported components that in total cost more than the imported finished cars themselves because shipping the knocked-down parts cost more and also, possibly, because of some overpricing for kickbacks.

The services sector contributes almost 40 per cent of GDP and is dominated by low productivity jobs in trade and transportation. About 800,000 workers, at the peak, from a labour force of 21 million, are employed abroad. Officially-recorded remittances of these workers have been sensitive to the black market premium of the foreign exchange rate.

Imports account for about 25 per cent and exports for 20 per cent of GNP. Merchandise imports averaged about \$7.5 billion a year in the period leading up to the crisis while exports could manage \$5.5 billion in a good year. Since the second oil crisis, the order of magnitude of the annual trade deficit exhibited a rising trend from about \$1.5 to about \$2.0 billion.

Consumer goods constitute about 7 per cent of imports. The most critical import items are raw materials and intermediate good imports which constitute about 40 per cent of the total and capital goods imports which constitute about 23 per cent. As the experience in the crisis has

brought out intensely, the evolution of imports is dominated by 'noncompetitive intermediates and, as such, enter into prime cost' (Taylor (1981)).

Raw material and agricultural exports (coconut products, logs and lumber, copper concentrates) contribute about 46 per cent of total exports and the country has on these exports since the colonial Non-traditional exports (garments, semiconductors. furniture, shrimps) have been growing in importance but are plagued by high import content, unreliable domestic inputs (for example, furniture exporters have a difficult time obtaining wood locally), and high dependence on working capital financing.(5)

On the demand side, consumption constitutes 63 per cent of GNP. Government expenditures represent about 12 per cent of output. Investment averaged 29.3 per cent of GNP between 1974 and 1983 with the government taking an increasing role. Investment in the 1970s was fueled by the inflow of government guaranteed foreign debt as can be seen indirectly in Table 1.7.

In 1979 the government began a big push into corporate its much-heralded 'countercyclical investments, as in policy', so that the increase in government savings was matched by an increase in 'corporate' savings. The extension government guarantees through its large financial the Philippine National Bank of the Philippines, spurred corporate Development Bank investment, especially in new 'conglomerates' owned by individuals close to the Marcos'.

#### (b) Prices and costs

For agricultural exports, the Philippines is almost wholly a price taker. The swings in the terms of trade shown in Table 1.3 mimic the recessions and booms in the OECD countries because of the importance of agricultural exports

in the country's trade. Increases in the peso prices of coconut oil have exerted pressure on domestic prices of cooking oil in the past but these pressures were not so strong in the adjustment period because of the generally depressed demand for coconut products.

Until the crisis, key agricultural products for domestic consumption, notably rice which is the staple, were subject to a price control programme with mandated price ceilings. This did not involve subsidies from the government budget. The government rice-buying programme was principally directed at stabilizing prices, even though it gradually began to control an increasing proportion of the domestic trade from an initial participation of about 10 per cent of the market.

Because of the import content of fertilizer prices, however, it was necessary to adjust rice and corn prices in response to the devaluations and this was another channel of inflation. Between June 1983 and December 1984, the support price for unmilled rice had to be increased by 97.1 per cent and this induced a 72.6 per cent increase in the price of milled rice.(6)

Starting in the last quarter of 1984, however, the government seized the opportunity to start removing price controls on basic commodities (also in response to IMF pressure). In September 1985, price controls on rice, the last item to be decontrolled, were removed.

Prices in the industrial sector are determined principally by adding up costs: importation costs plus tariffs plus production costs plus the markup (though it is difficult to point to some study providing direct evidence). Declines in demand during the adjustment did not reduce the real prices of these products, though it did induce the closure of many of the enterprises producing them, including the domestic car firms.

Minimum wages are set by 'tripartite bargaining' but are unenforceable in the great majority of firms (Tidalgo and Esguerra (1984)). Unions, even while successful in obtaining increases in the legislated minimum wage, were too weak under the martial law regime to demand local enforcement.

Mariano's (1985) monthly inflation model provides some 'clues' about the relative strengths of these influences on domestic inflation (see Table 1.8). This one-equation model is a forecasting equation, and not a structural one. In the long-run, the strongest influence on inflation in Philippines is some function of the relationship of total monetary liquidity to real output. In the short-run, however, the local currency prices of imports, fuel non-fuel, have the biggest impact on inflation, followed by 'the' interest rate: wages, export prices, liquidity, and food prices, have a smaller impact. The black market premium for foreign exchange ('a proxy for the inflationary effects of developments in the political scene and the scarcity of foreign exchange', Mariano 1985, p.8)), also has an effect on inflation.

#### II. ADJUSTMENT STRATEGY

#### 1. Toward the 1983 Crisis

In 1979, after the second oil shock, the government engaged in a so-called 'countercyclical policy' which, investment practical terms, meant pushing up through increased foreign borrowing under government guarantee. The huge increase in the budget deficit was financed mainly by short-term borrowing abroad, largely for commercial banks. But as early as 1981, large investment projects of favoured groups of the Marcos regime started to fail (de Dios (1984), Montes (1986)), causing acute bad debt problems for official financial institutions and requiring increasing budgetary contributions from the national government. Table 2.1 shows how much smaller the government budget deficit might have been had these budgetary contributions not been made to government corporations. In the years immediately preceding the crisis. 1981 through 1983, there would have government surpluses of about 1.5 per cent of GNP (Table 2.1).

These government budget deficits in turn translated into current account deficits as shown in Table 2.2. In the period from 1975 to 1982, the government budget deficit peaked at 4.7 per cent of GNP and the current account deficit at 7.6 per cent of GNP (Table 2.2). In the same period, the total external debt doubled to \$26 billion between 1979 and 1983.

#### 2. The adjustment strategy

When the 1983 balance-of-payments crisis struck, the Philippines was operating within an IMF standby programme, which set a target of \$800 million for the balance-of-payments deficit for 1983. By June of 1983, however, the deficit had already reached \$562 million and it was clear that the country would not fulfill its IMF commitments by year end.

The peso was devalued in June 1983 from P9 to the dollar to P11 but this did not lessen the difficulty the country was experiencing in rolling over its short-term credits with the commercial banks. Then Aquino assassination on 21 August 1983 triggered a torrent of closures of commercial credit lines to the country. At seemed to the Marcos government that the that time. it principal problem was the restoration of trade credits. this, the government turned to the IMF and began to renegotiate its adjustment programme.

On 17th October 1983 the government devalued the peso from P11 to P14 to the dollar and announced: (1) that it was declaring a moratorium on the payment of principal on its debt and (2) that it was negotiating a new programme with the IMF. Many expected an agreement by December, 1983. But negotiations were not completed until a new programme agreed upon in December 1984. Many factors lay behind the long delay in reaching an agreement with the of the central bank's overstatement ofits international reserves - it turned out since 1981 - by as much as \$800 million was probably the final straw in the breakdown in talks with the IMF in December 1983.

Unconfirmed rumours attributed the leaking of the information to the international commercial banks which had started balking at increasing their Philippine exposure. This would have been quite comprehensible since it was the commercial banks whose exposure had been rapidly increasing since 1980. Their generosity with short-term, variable-interest, syndicated loans for the central bank greatly helped the Marcos government to avoid wrestling with the country's economic problems.

There was also a sharp run-up in money supply starting in December 1983 caused by many contributory factors. The devaluation of October forced the central bank to honour the forward exchange cover commitments it had entered into in the previous period as a strategy to increase foreign

capital inflows. Another factor was the contribution the central bank made to the Development Bank of the Philippines to enable it to honour the guarantees it had extended to foreign creditors.

By January 1984, the campaign for the national assembly for the May elections had begun in earnest. regime saw this exercise as its first opportunity to prove to the world that it was in firm control. It was not until that the regime saw fit to address 1984 balance-of-payments problem again. This delay had very serious longer-term effects in allowing the debt situation to grow out of control.

In order to ration the foreign exchange through this of inaction, the central bank imposed controls, imposing a limit of \$50,000 per month per client. government (and December 1984. the the with almost no foreign financing for international trade, and the Marcos government resorted to various stopgap measures.

Until trade credits could be restored and except for oil and a few essential commodities, the cutoff in international trade credit meant importations were allowed on a 'no dollar basis'. Under this system, no documentation was required regarding the source of the foreign exchange used to import goods. This in effect meant that private businessmen could import as long as they used their own foreign exchange funds.

The government also obtained emergency USAID financing to import fertilizer for the planting season. The government managed to obtain a total \$2.2 billion from official sources in 1984 and 1985. In 1984, it received \$1 billion composed of more than \$300 million from the World Bank and the Asian Development Bank, \$425 million in credits from the US Eximbank and the Commodity Credit Corporation and almost \$200 million from Japan.

As an indication of the government's desperation, for one year until December 1984, the government allowed firms with foreign participation to apply the cost of their importations toward equity in those firms.

One might say that at this point the IMF changed its posture from that of a doting parent to that of a vengeful god. It seemed as if the IMF had made the judgement that the authoritarian government had finally put itself in such a helpless position that it would have to accede to giving government technocrats, who had attempted vainly in the past to carry out its suggested reforms, a decisive influence over public management.(12)

However, the train of events set in motion by this change in approach was not at all what the IMF expected. Admittedly, the authoritarian government was powerful enough to do two normally contradictory things at the same time: to protect the interests of its supporters and to carry out an adjustment programme, even within an IMF programme, But the strategy had a fatal flaw. It led to the government's increasing isolation, especially in the urban areas and in the business sector and, in February 1986, finally yielded a result that neither the IMF not the United States government expected: the overthrow of the regime they had been working with for such a long time. Neither the IMF nor the US government would have been exactly eager to claim credit for this result at the moment that it happened.

The Marcos government's analysis of the crisis focussed primarily on the loss of trade financing. The government's negotiating strategy was premised on such an analysis. Under this framework, the return of commercial credit was the ultimate objective and in the situation it was necessary to obtain the necessary IMF blessing. The government sought and eventually obtained: (1) an IMF standby agreement of SDR 615 million and (2) a rescheduling with the Paris Club of \$0.8 billion in official payments.

These agreements formed the basis for new accomodation from the private commercial banks which had three key elements: (1) a rescheduling of principal payments due within the two year period ending 31 December 1986, (2) \$925 million new money, and (3) the establishment of a \$3 billion trade facility. The level of the trade approximated their trade financing exposure to the country in October 1983. Both the IMF and the commercial bank new the were designed to augment central international reserves.

Because the analysis focussed primarily on the need to restart trade financing, the Marcos government's approach was inherently short term. This short-term and commercial orientation was strongly confirmed when J. Laya, a former academic who had been the governor since 1981, was replaced in January 1984 by J. Fernandez, a principal owner of one of the country's largest commercial banks, as a result of the international reserve overstatement scandal. Further because the negotiating strategy made IMF indispendable, the Marcos government felt that it had to attain all the agreed upon targets to the letter, regardless of the impact on economy. The most powerful individuals in the Marcos government seemed to be acting in the belief that this time the government had at least to humour the IMF.

Indeed, the country's 'adjustment' programme was implemented first in 1984, when the country was still negotiating with the IMF and then in 1985 under the new standby agreement (the 18th in a long row).

That the government was operating under the aegis of the IMF even before the programme officially began in January 1985 was widely known. The dimensions of the implicit adjustment programme 1984 can be deduced from a table entitled 'A Framework for Adjustment' that the central bank produced in November 1984.(7) The numbers from this table and the subsequent actual figures are given in Table 2.3.

Under the December 1984 agreement, the Philippine government had undertaken the following so-called prior action measures: (1) 'the reduction in reserve money,' (2) 'the float of the exchange rate,' (3) abolition of the foreign exchange 'surrender requirement and the priority allocation system introduced after 17 October 1983 and the reform of the foreign exchange system,' (4) 'increase in interest rates on central bank bills and Treasury bills to approximately 40 per cent at the time of the float, together with increases in several other lending and deposit rates,' (5) 'implementation of a significant tax package involving structural changes to broaden and strengthen the tax base,' and (6) 'increases in administered prices to reflect market conditions,' and (7) 'formulation of the counterpart peso deposit scheme covering foreign currency obligations designed to support the attainment of monetary aggregates'.(8)

Except for item number 7, these prior action measures can only be interpreted as classic IMF adjustment measures. Item number 7 was a scheme by which the Philippine debtors, particularly the government corporations such National Power Corporation, would pay for their debt service to the central bank in pesos. The central bank would in turn assume the dollar liability. The reason why the scheme could said to be 'designed to support the attainment monetary aggregates' is precisely because the financial payments being ultimately raised either from tax revenue are transformed into the national contributions to these companies) or from the 'increases in administered prices' ended up being sterilized with the central bank.

The latter scheme has been a significant factor in drastically increasing the effective marginal propensity to save by the government sector which has a contractionary short-term effect (Krugman and Taylor (1987)).

Table 2.3 shows that, on this occasion, the government more than fulfilled the programme targets deemed critical by the IMF. The current account deficit in 1984 was \$1.3 billion (3.9 per cent of GNP) compared to the target \$1.5 billion (5.2 per cent of GNP). In 1985, the first year the official IMF programme, instead of the planned current deficit of \$1.1 billion (4.1 per cent of GNP), there was actually a slight account surplus \$8 million (about zero per cent of GNP). In 1986, mostly under a new government but with the level of activity already depressed, instead of a current account deficit of \$0.6 billion, there was another surplus of \$0.9 billion. For 1984 and 1985, all the monetary growth targets were over fulfilled (Table 2.3). Only in 1986, with the change in government, were these monetary ceilings exceeded. There was also an overachievement with respect to the inflation targets, as described below and shown in Table 2.3.

Within this framework, the government carried out a monetarist adjustment programme which provided for requirements of the regime and its followers at the same time that it drastically reduced the current account deficit through the reduction of credit to the private sector.

The nature of this approach is documented in Table 2.4 which provides details of the annual rates of changes in reserve money for each quarter from 1980 to 1985. We can now explain the Marcos-cum-IMF approach using the data in this table.

The first requirement of the regime was the maintenance of its grip on political and military power. Given the key role that the United States had always played in national politics through its moral authority over the armed forces, political control was secured, in the first instance, through election exercises. Since the onset of the crisis, there were two elections of crucial importance to the authoritarian government: one in May 1984 for members of the

parliament and the snap election for president in February 1986.(9)

An examination of the credits to the public sector by the central bank for the quarters 1983.4, 1984.1, 1984.2 corresponding to the period before the first election reveals significant increases in lending to the govenment at the same time that credits to the deposit banks were being decreased. The same thing can be said for the quarters 1984.3 and 1984.4 before the February 1986 election.(10) The needs of the economy were plainly being sacrificed to political expediency.

The Marcos regime provided for the requirements of its immediate followers by many different means. The most important means was through central bank and national government contributions to the Development Bank of the Philippines (DBP), and the Philippine National Bank (PNB). These subventions prevented these companies from going bankrupt while failing to collect on their receivables from favoured groups and individuals. As of end-1985, 58.2 per cent of PNB and 87.0 per cent of DBP assets were classified as 'non-performing'. The values of these assets totalled P41.4 billion (about \$2.2 billion) for PNB and P65.2 billion (about \$3.4 billion) for DBP.

The exchange controls that had been reimposed upon the onset of the crisis favoured groups and individuals close to the government. As the banking crisis worsened, the speed of the bailouts became dependent on neutrality with respect to, if not closeness to the regime. In one case, fund releases from World Bank credits to a private development bank were held up unnecessarily, reportedly because its president was active in the opposition.(11) The election exercise of May 1984 offered many opportunities for transferring government resources to supporters of the regime at local levels.

At the overall level, however, the IMF targets could be attained only by redirecting resources away from the private

sector as a whole toward the government and the private sector allied to Marcos. Thus the general strategy required that while resources were chanelled to the defence of the authoritarian government, overall financial resources were being kept constant in nominal terms and actually being reduced in real terms, because of the concommitant inflation, in order to meet the IMF targets.

The private sector, in general, did have huge claims on the central bank and government, at the start of the crisis, from the forward exchange-rate cover that had been provided by the government earlier. In Table 2.4, the item that changes the most drastically from 1983 onward is 'other' claims. During the crisis, this item was dominated by revaluation effects and increases in claims on the central bank based on forward exchange cover previously provided. These increases were induced by the devaluations in June and October 1983.

To have honoured all of these claims, as the central bank had started to do in the last quarter of 1983, would have violated the implicit IMF ceilings for 1984. The initial intervention of the central bank was to 'block' the peso credits created by these liabilities which turned up as 'blocked credits' with the central bank. In this way, while the balance sheets of the affected financial enterprises were not impaired, the financial system was also rendered incapable of utilizing these resources. A 'blocked credit' was a balance with (an obligation of) the central bank.

The other policy instrument of the central bank turned to be the more powerful and destructive. This was the sale of central bank bills at interest rates that peaked at 43 per cent in October 1984. In the nature of these bills, locally known as 'Jobo Bills,'(13) their rate became the interest on 'fully secured' loans. These bills had maturities as short as thirty days; the longest maturity sold was for 270 days.

In conjunction with this strategy, which was tantamount to the central bank directly borrowing from the financial system, the so-called reverse repurchase agreements also became a key financial instrument. The 'reverse repurchase agreement' was applied to maturing central bank obligations. On the maturity of such obligations the central bank would have had to repurchase the obligation. The reversal of this repurchase was tantamount to rolling over the obligation at a new interest rate.

The strategy turned into a full scale attack on the financial system as the private banks were besieged by preterminations of time deposits by depositors seeking to transfer their assets into central bank instruments. Small thrift banks and the largest savings bank in the country failed. The World Bank estimated that total real deposits fell by 29.2 per cent and total real loans outstanding fell by 53.8 per cent for the commercial banking system in two years between 1983 and 1985. Certainly between 1984 and 1982, M2 as a fraction of GNP declined from 23.5 per cent to 20.4.

Manufacturing operations shut down or scaled down as the opportunity cost of financing working capital became prohibitive, compared to the return available on a fully secured central bank bill or a Treasury bill. Capacity utilization ratios of 40 per cent in many of the mainline industries, such as appliance manufacturing, became typical into the year 1986. Commercial bank loans maturities lasting over a year disappeared. The year end nominal value of loans outstanding by the commercial banking system to the manufacturing sector fell by 9.2 per cent in 1984 and by 31.9 per cent in 1985. The decline in the real value terms of these loans was much more, in view of the 50 per cent 1984 inflation rate. Even the agriculture was not spared the withdrawal of credit. The outstanding loans of commercial banks to agriculture in nominal fell by 35.9 per cent in 1984 and by 0.3 per cent in 1985.

As net external financing to the national government fell and the central bank was compelled to reduce the growth rate of reserve money under the IMF programme, the government had to increase its borrowing from the private sector further even while its deficit was falling from 4.3 per cent of GNP in 1982 to 1.8 per cent in 1984. Between December 1983 and December 1985, the growth rate of the stock of government securities held by the private sector exceeded 50 per cent per year.

While national government was appearing the approximate the public sector successfully borrowing requirement targets that had been set in the adjustment programme, the central bank was effectively taking up the deficit burden through its sales of central bank (CB) bills at very high interest rates. Table 2.5 provides a summary of the deficit, in per cent to GNP, that might be attributed to the whole government sector for the years 1983-85.

The overall government deficit increased slightly in 1984 from 8.2 per cent of GNP to 8.3 per cent (Table 2.5). This occurred in spite of the slight drop in the national government deficit and the large drop in the deficit of the large government corporations, because the central bank's deficit exceeded the public sector borrowing requirement. Its deficit of 5.2 per cent of GNP in 1984 was mostly traced to losses incurred from the interest payments on the CB Bills that it had floated in that year to reduce the monetary base and liquidity.

In 1985, the public sector borrowing requirement was actually just as large as the central bank deficit (Table 2.5). In 1985, the deficits of the government financial institutions almost doubled from 1.6 per cent to 3.1 per cent of GNP as private sector resources were withdrawn to service the requirements of Mr. Marcos and his need to meet IMF programme targets. The year 1985 was a particularly difficult year since in that year no net foreign savings was received. The immediate effect of the strategy was a steep

rise in nominal domestic interest rates (Table 2.6) accompanying the huge shift of financial resources from the private sector to the government and the central bank.

The monetarist strategy worked as powerfully as its supporters claim it could work. The speculation against the currency was brought to a full stop. The tightness of credit induced a contraction in the economy that 'solved' the external financing problem. The most telling evidence that the domestic macroeconomic management was more restrictive than might have been necessary is the fact that by year end 1985, \$1.74 billion of the \$3.0 billion trade credit that had been arranged under the IMF programme remained unused.

The effect of the monetarist programme was certainly an adjustment. However, it involved (1) a shooting up of inflation from 8 per cent before the crisis to a peak of 63 per cent, and (2) a fall in real output of 6.8 per cent in 1984 and 3.8 per cent in 1985.

The first effect, inflation, drastically reduced income levels for almost all sectors of the population (except for those who had the liquidity to move into central bank and Treasury bills). This precipitous fall in real income plus the disappearance of credit even for exports induced a further fall in income and output. The rapid fall in income levels, in turn, wiped out domestic demand, and this eventually 'solved' the inflation problem itself.

Table 2.7 attempts to depict the drastic fall in economic activity and income in the tight credit regime of 1984. In this table only data, used by the planning office for monitoring purposes, from 200 largest corporations are shown so that it hides the larger adjustments that were carried out in smaller enterprises. The level of employment which had already been falling in 1983, fell by as much as 8 per cent in June and July, 1984 for these large companies.

The rate of decline of employment levels peaked at 11 per cent in May 1985.

The last column of Table 2.7 subtracts the rate of growth of the wholesale price index from the value of production as a measure of real output declines in these top 200 corporations. In October 1984, the rate of decline in real output of these companies peaked at 46 per cent. For all the months in 1984 and 1985, there was a consistent fall in real output from the same month in the previous year.

#### 3. Supply side adjustment policies

To make a just evaluation of the IMF programme we must discuss the other aspects of policy that were part of the adjustment package that were directly related to the demand substitution and the supply-side aspects of the programme.

First, let us discuss the foreign trade and foreign exchange aspect of the programme. On 23 June 1983, government devalued the peso by 7.8 per cent, to P11 to \$1. The government seemed determined to defend this rate for the rest of the year, until the Aquino assassination occurred. On 5 October 1983, it was forced to devalue to P14 to \$1. The response of the Marcos regime to the further worsening of the crisis was to attempt to ration foreign exchange. In November 1983, the government created a foreign exchange pool for priority import payments by requiring all banks to surrender 100 per cent of their foreign exchange receipts; this requirement was reduced to 80 per cent in June 1984. The government set priorities in the allocation of foreign exchange to crude oil imports, raw materials, supplies, inputs of export products, essential grain imports, and raw materials for 'vital' domestic industries. The government also imposed ceilings for payments and new import letters of credit.(14)

On 6 June 1984, the government was forced to devalue again to P18 to \$1. In preparation for the IMF agreement in

December 1984, the government abolished the foreign exchange priority programme on 15 December 1984 and gradually permitted private banks to keep an increasing percentage of their foreign exchange receipts.

It was in the nature of the authoritarian regime that just as it was officially liberalizing the foreign exchange market, it managed to impose its will on the exchange blackmarket. This was carried out reportedly under the supervision of the former trade and industry minister, who is now facing tax evasion charges in connection with the operation under the new Aquino government. The government guaranteed to the large traders the wherewithdrawal with which to ship the foreign exchange out to Hong Kong.(15) In exchange, the government dominated the determination of the exchange rate. A January 1987 investigation has revealed that five government corporations under the control of the ministry of trade and industry experienced huge losses in connection with the operations to control the foreign exchange black market.

As part of its revenue raising efforts (since trade taxes are relatively easy to collect), new trade taxes were imposed at the beginning of the crisis. An additional advalorem duty on imports which started at 3 per cent and peaked at 10 per cent by June 1984 was imposed. The additional import duty alone accounted for the P2.6 billion out of P6.9 billion, 38 per cent and the largest, additional tax measure in 1984.

Additional export duties were imposed on exports the greatest of which was an economic stabilization tax of 30 per cent in addition to existing export duties in June 1984. A foreign exchange transaction tax of 1 per cent was imposed on 15 October 1984, just as the government was ostensibly freeing the foreign exchange market. The export taxes were later suspended in preparation for the IMF agreement at the end of December.

Thus, as the crisis gathered force, the government was actually increasing the ad valorem tax rates on imports and exports and engineering a redistribution of income from the private sector to the government. Krugman and Taylor (1978) have illustrated the contractionary influence of devaluation with ad valorem trade taxes. The unprecedented inflationary process thus set in motion, prevented real devaluation from taking place. In addition, the government's import control provided additional impetus for programme import speculation, which fueled inflation even more. On this, the additional import taxes were passed on directly to local consumers.

Thus the nominal devaluations failed significantly to reduce the overvaluation that had characterized trade policy before the crisis. It was not until June 1984 that the devaluations gave some slight advantage to exports and import substitutes. At this point, there was a 50.9 per cent net effective change in the exchange rate while the GDP deflator had changed by 46.7 per cent and the compensation rate index had changed by 23.4 per cent.

Then in 1985, with the IMF support well in hand, the exchange rate appreciated in real terms. In an oligopolistic market setting, devaluation plus import controls is inflationary; but appreciation of the currency will not be disinflationary. The deceleration of inflation in 1985 was induced mainly by the deep internal recession and the slow recovery of output.

The adjustment period also saw many changes price control programmes of the government. At the end of the programme, the price control programmes on basic commodities had been eliminated. The authoritarian government characteristically had a significant programme of socialized pricing. Thirteen 'basic' commodities, including chicken, eggs, and milk were subject to ceilings. In addition, prices of petroleum products were regulated. The initial response of the government to the

inflation was to attempt aggressively to revise price ceilings on basic commodities. The pressures to revise ceilings came from suppliers, who would withdraw supply in response to delays in price increase, and the pressures were irresistable after each peso devaluation. As we noted in Section I, rice and corn prices had to be immediately adjusted to devaluation because peso fertilizer prices went up in response.

Finally, in October 1984, also in preparation for the IMF programme, the government removed all price controls except for rice, which was then removed in anticipation of the rice harvest in 1985. The removal of the price control programme on basic commodities did not induce further inflationary pressures in 1985 because of the depressed state of demand and employment in that year.

As we showed in Section I, the peso prices of petroleum products have an immediate and large scale effect on domestic inflation. The increases in peso oil prices to the end of 1984 were due to the devaluations and the import surcharges that the government imposed in an effort to raise tax revenue. About 39 per cent of the gasoline price, for example, was contributed by government tax and price stabilization interventions. Between July 1983 and December 1984, the average peso price of petroleum products increased by 129.7 per cent.

In 1985, even as world crude prices were beginning to soften, the peso price of petroleum products remained constant. In fact, it was in 1985 when the shift of taxation on petroleum products to ad valorem basis provided new revenue in the amount of P2.1 billion. Thus, because of fiscal considerations, the government, operating as any domestic oligopolist and justified by the objective to studiously attain the goals of the IMF programme then in its first year of official operation, did not pass on the effect of a steadier exchange rate and lower world prices to domestic petroleum prices. A passing on of lower oil prices

would have had a non-inflationary reflationary effect in 1985.

as part of the Indeed IMF programme, government administered prices were increased. The utility programmes government its most significant were borrowers and there was a long-term need to improve the internal cash gerneration of these utilities. The increases that had been implemented in the programme were however more directly related to increases in petroleum and other costs induced by the devaluation. Average water tariff rates were increased by 50 per cent, while average power tariff rose by 64 per cent in the period. The government did start a long term programme to reduce the electric tariff subsidy to small users but did not make significant headway because an abrupt adjustment would have caused large price increases for poor urban users. The positive aspect of these that the government finally, by force changes is circumstances, shed its obligation to control the prices of basic commodities.

In the case of wages, the government increased minimum wages three times in 1984, by a total of 77 per cent in nominal terms between the end of 1983 and the end of 1984. By November 1984, because of the inflation, the real minimum wage in 1978 prices had fallen slightly from P17.78 per day in December 1983 to P17.13 in Manila.(16)

In normal times, minimum wages apply only to the formal private sector, which would include no more than 15 per cent of the employed labour force. The degree of compliance has been poor. Based on inspections, and inspections are not evenly carried out, 9 per cent of establishments were found violating minimum wage legislation between 1976 and 1979. To compound the problem, the labour ministry approved 57 per cent of 340 applications for exemption from minimum wage legislation on the ground that the crisis had made these companies distressed.

In the financial sector, the Philippines has had a long history of anti-usury ceilings on interest rates. In July interest rate ceilings were lifted on all types of deposits and loans, except for short-term loans, which were lifted in January 1983. The 'liberalization programme was biased towards big financial groups, a feature that had been suggested by the World Bank team itself. The programme in capital involved increased minimum requirements. justified on the grounds that these would exploit economies of scale (a rather dubious proposition) and provide banks for larger base long-term intermediation. Specialization of financial functions would be sacrificed in favour of large 'universal banks' that could internalize the intermediation process.

The financial liberalization programme was accompanied by a quantum leap in the rediscounting activities of the central bank. Rediscount facilities were made available for many types of projects, including sugar trading, small and medium-scale industries, metal financing, manpower exporting, coconut milling, and so on. Between 1981 and 1984, the amount of rediscounting by the commercial banks was more than twice the amount in the previous ten years.

Overall, the liberalization programme brought about a more ologopolistic structure in the financial services sector, a strengthening of the opposition to free entry to banking and, before the start of the crisis, minimal increases in the deposit rate. Loan rates did not seem to be materially affected since even before liberalization, banks had been quite agile in charging going interest rates by tacking on service charges to loan agreements.

At the start of the crisis, the central bank was forced by circumstances to confine its rediscounting operations to vital projects. By January 1984, the rediscount rate was based on the current cost of credit. The financial crisis that began as early as 1981 and which was exacerbated by the adjustment programme left six major banks under the control of the government. In some of these banks, government deposits are being maintained to maintain liquidity; in others, loans have been converted into equity. These problems have increased the national government's financing requirement.

Thus the adjustment period had the positive effect of dismantling the byzantine rediscounting operations of the central bank. Because of the high interest rates in 1984, deposit rates for small depositors finally increased to as high as 15 per cent as commercial banks were forced to defend themselves from withdrawals by depositors attempting to move into central bank bills.

On the other hand, the adjustment brought about a weaker and more oligopolistic financial sector. The real sector of the Philippine economy is still trying to extricate itself from the rise in the intermediation spread, which for large commercial banks was in the range of 7 to 8 per cent in 1985, that was induced by the crisis, even as nominal interest rates on secured loans fell to 13 per cent in 1986.

In many of the relative price issues we have discussed above, the problem of government financing has swamped efforts to address supply side issues in the adjustment. Table 2.8 shows the government revenue programme in the crisis. In 1984, 26 per cent of tax revenue came from income and wealth taxes, 33.5 per cent from trade taxes, and 33.3 per cent from excise and sales taxes.

There is a pressing need to carry out long-term reforms to reduce the reliance of the tax system on trade and sales taxes. In the nature of the situation, however, income and wealth taxes are the most difficult to raise in the short period of an adjustment. The Table 2.8 shows that while this programme had been worked out with the IMF and while we have

to admit that the IMF recognizes the need for long-term tax reform, these reforms could not be carried out in the adjustment.

In fact, the tax programme is extremely regressive, because regressive taxes are easiest to impose politically (even in a dictatorship) and the easiest to collect. For example, a tax on interest income of 17 per cent penalized heavily small depositors whose income tax rates would typically not exceed ten per cent; however, the tax was easily collectable from the banking system. As Table 2.8 shows, taxing all interest income at a fixed rate provided a revenue increase of P2.0 billion in 1985 alone.

An example of a failed attempt to rely more heavily on income and wealth taxes was the proposal by the government in 1984 to change the assessment basis for the real estate tax from 1978 values to 1984 values. The middle class successfully resisted this proposed tax. The new Aquino government announced the same — 1984 basis policy at the end of 1986 and found itself in January 1987 having to suspend its implementation.

#### III. THE IMPACT OF ADJUSTMENT

## 1. The path of adjustment

The crisis began in the third quarter of 1983 with GNP growing at 1.8 per cent per year (see Chart 1). GNP growth rate plunged to a negative rate of almost 12 per cent per year in the third quarter of 1984, and remained negative until the first quarter of 1986. It dipped again in the second quarter of 1986 with the change in government. GDP growth was negative every quarter for three years until the third quarter of 1986.

The rates of growth of total investment are depicted in Chart 2. Under the monetarist programme, real investment spending declined consistently after the third quarter of 1983. Private construction spending led the fall in investment (Chart 3) with declines of over 30 per cent per year in 1984 and over 60 per cent in 1985, the first 12 months of the IMF programme.

With the high cost of financing, real imports fell, most precipitiously in 1985, the first year of the IMF programme (Chart 4). Exports (Chart 5) recovered in 1984 when the US trade deficit caused a boom in world export, but fell away in 1985: by the fourth quarter they were 20 per cent below the corresponding period of 1984. This fall is attributable to declines in world prices of exports such as coconut oil, the fall in semiconductor chips exports due to the worldwide fall in demand, and rise in domestic interest rates which made transport and storage prohibitive.

A severe inflationary period characterized the adjustment process in the Philippines. Before the onset of the crisis, inflation as measured by the consumer price index was running at 7.3 per cent. A look at Chart 6 reveals that during the period of the adjustment, the inflation rate shot up to a peak of 63 per cent before settling back down to around 5 per cent per year by the end of 1985. The first

steep rise in the inflation rate between the third and fourth quarters of 1984 coincided with first steep (nominal) devaluation that occurred in the same period. examination ofChart 6 shows the leading role that devaluation has played in inflation in the adjustment.

The important role of the monetary sector adjustment process is shown in Chart 7 which shows that the annual growth rate in the monetary base closely tracked the inflation rate until July 1984 as the Philippine authorities their immediate requirements, especially connection with the May 1984 parliamentary elections. After that, the monetary base was consistent with either prior policy commitments or with IMF programme targets. Monetary base fell, followed by the inflation rate. Reserve money does not seem to have a positive relationship with output. As shown in Charts 8 and 9, total liquidity and the cost of credit has a greater impact on real economic activity. The growth rate in nominal liquidity fell after January 1984, in spite of the fact that the monetary base increased until July 1984, as noted earlier. The decline in liquidity growth took place through a drastic fall in intermediation - which shows up in Chart 8 as a drastic fall in the 'multiplier'. Real liquidity, shown in Chart 9, follows the pattern of real GDP. For these reasons, the recent adjustment programme in the Philippines has to be called monetarist.

Chart 10 graphs the inflation rate against the rate of interest and the real GNP growth rate. (In this case the series that is graphed is the level of the interest rate and not changes in the level.) Beginning in the first quarter of 1984, the interest rate and the inflation rate reached a coincident peak in the third quarter of 1984. On the basis of current nominal interest rate minus the current inflation rate, the real interest rate turned negative from the start of the crisis until the second quarter of 1985. development was at least consistent with 'disintermediation strategy' of the government.

### 2. Results of adjustment

On the basis of the most commonly used indicators, the Philippines successfully completed a macroeconomic adjustment by the end of 1985, six months ahead of the completion of the then current IMF programme.

Beginning from current account deficits of \$3.1 billion in 1982 and \$2.5 billion in 1983, representing 7.9 per cent and 8.1 per cent of GNP in the respective years, the country achieved by 1985 a current account surplus of \$8 million. Inflation, which had peaked at 63 per cent per year in 1984, declined to 5.7 per cent per year by December 1985, and to 3.8 per cent in February 1986. The Philippines also paid off all the arrears in the servicing of its foreign liabilities that had arisen as a result of the crisis – except for those that had been explicitly restructured in accordance with the adjustment programme.

As the IMF itself noted, many of the painful stabilization measures had actually been put in place in 1984 as prior action commitments.

But in terms of an improvement in the current account that provides the basis for recovery, real adjustment take place. In the first place, export not during consistently decreased the two years of adjustment. The year 1984 was a boom year for developing country exports, but value of Philippine exports grew by only 7.7 per cent (against a target of 10 per cent) and the volume fell by 2.6 per cent. The poor export performance in 1984 is blamed by many exporters on their inability maintain supply to their foreign customers because of the high cost of credit (which was not offset by the real devaluation in that year) and the uncertain political climate.

The decline in the volume of exports in 1985 reflected the cumulation of the strains introduced in 1984, the continued high cost of credit, and appreciation of the peso in that year (last line of Table 3.4).

Adjustment was achieved through the fall in imports. The fall in capital goods imports is relected in the fall in capital formation of 36.7 per cent in 1984 and 20.7 in 1985, while the fall in industrial inputs is reflected in fall in real industrial output of about 11 per cent in each of those years.

The fall in merchandise import values of 18.9 per cent in 1984 and 15.5 per cent in 1985 brought about an improvement in the current account despite the poor export performance. Indeed, in 1985, the value of merchandise exports fell by 14.2 per cent yet the current account moved into surplus because of the fall in imports.

The heavy reliance on monetarist adjustment, authoritarian government style, is shown in the steep fall in nominal reserve money (net of 'blocked' other credit) of 188.3 per cent in 1984 and 20.4 per cent in 1985. Even monetarists would surely consider a fall in reserve money of such magnitude a real measure of credit tightness!

At the end of the adjustment period, the exchange rate, which was consistently overvalued in the 1970s and which embodied the country's inadequate long-run adjustment, began to appreciate again. A reversal of this trend will be necessary to set the stage for growth.

## IV. ALTERNATIVE ADJUSTMENT STRATEGIES

The government to which the following suggestions are being made has been consigned to the dustbin of history.

This section discusses - with the benefit of hindsight - some possible alternative adjustment strategies that might have been pursued. But it is entirely possible that the policies implemented by the fallen regime were the only actions it could have undertaken.

The fact that, upon its assumption of power in February 1986, the new Aquino government saw fit to retain the central bank governor who had had the prime responsibility for implementing the most destructive of those policies suggests to us that the lessons from that period have not been learned and there is still some value in offering some hypothetical suggestions to the late unlamented authoritarian government.

# 1. Political parameters in the adjustment programme

At this point, let us first identify the immediate constraints within which the authoritarian regime had to operate.

First, the dictatorship had to re-establish a good working relationship with the IMF and the international banks if it were not to lose the support of the government in the United States and other governments in the Western alliance.

Second, the dictatorship had to deflect public criticisms of these governments' support for the regime by carrying out and winning open election 'exercises'. The Aquino assassination had created a wide rift within the ruling classes. Election exercises were necessary to legitimize the regime in the eyes of the world. These election exercises also served the purpose of laying the

moral basis for cracking down on those members of the ruling classes which opposed the dictatorship.(17)

Third, the dictatorship had to maintain the resources of its band of supporters and maintain its capability to reward and punish in material terms in the face of the domestic political challenge that it faced.

### 2. Adjustments - should have started in 1980

All the suggestions that we make here have to be evaluated in the light of these constraints.

The principal suggestion is that adjustment should have commenced in 1980 in response to the looming domestic financial crisis. This crisis laid bare the failure of the previous investment strategy.(18) After 1980, the Philippines was basically borrowing short-term to finance payments on medium and long-term debt. Almost half the national debt was incurred between 1980 and 1983.

True, the dictatorship attempted to implement various programmes during these years that would normally be classified as adjustment-oriented. For example, it obtained structural adjustment loans from the World Bank that combined import liberalization with financing to improve the international competitiveness of key manufacturing sectors, such as the textile industry. These programmes, however, did not bring about adjustment.

The Marcos regime did not have the political capability to carry out these programmes as they were intended. It is true that the schedule for reducing the (arithmetic) average tariff rate from 43 per cent in 1980 to 28 per cent in 1985 was met. In the meantime, however, the currency continued to appreciate (on balance) in real terms. The programme to remove quantitative restrictions was undermined through the increasing participation in the import trade of government corporations and private companies operating under

incentives and protection, many provided directly by presidential decree.

Devaluation, while desirable, threatened to cause a loss of support from the ruling classes (something that eventually happened after the Aquino assassination and the subsequent election exercises). Furthermore, the removal of the quantitative restriction system would have run counter to the regime's programme to enrich its political allies. (An import control system has the advantage that it can be applied directly to favouring some economic actors as opposed to others).

In any event, what happened was that the Bretton Woods agencies did not abandon the regime in 1980, when there were more resources for an orderly adjustment, but finally did so in 1983.

Indeed, it is doubtful whether the adjustment programme would have succeeded even if it had been implemented as 'designed'. The country did not have much access to foreign except in the short term. to finance investment that would have been required for such adjustment. The investment climate was so poor that not even half the funds that were received for the textile industry programme were utilized. The economic situation steadily deteriorated from 1980 - until the crisis struck.

### 3. A gradual stabilization starting in 1983

What alternative strategies could have been adopted, assuming that adjustment could only have begun in 1983? In these suggestions we assume that an overall programme could have been designed and implemented, with or without the support of the Bretton Woods agencies.

1. <u>Cutting budget deficit</u>. The government should have acted immediately to reduce the budget deficit, which instead increased as a result of the need to service foreign

debt and bad domestic loans that had been incurred by its financial and non-financial corporations. A solution to this problem would have been a project for which the Bretton Woods agencies would have been eminently qualified to have lent support.

The following policies would have been indispensable in this effort:

- a) The government should have begun a serious effort to collect all debt payments overdue from private borrowers to government financial institutions. True, the political enormity of this task can be appreciated when it its realized that it would have required the regime to ask its strongest supporters to remit part of their foreign assets back to the country! Nevertheless, given that eventually the Marcos dictatorship was toppled from power, their long-term interests might have been served by such a return of foreign assets.
- b) The government should not have viewed the problem as solely that of the reopening of trade credits but should have begun a serious renegotiation of foreign debt service and guarantee liabilities. As part of this strategy, the government should have been prepared to declare а debt service moratorium until the negotiations had been completed to its satisfaction. The unacceptability of negative growth would have been a key element in such a position. In the meantime, as the negotiations might have proceeded, the might have declared that its debt service would not exceed a given proportion of its exports.

Clearly, this approach would have confronted many difficulties. It was in the nature of the Marcos government to seek support from the United States and the international business community. Moreover, in 1983 and most of 1984, Mexico was still the darling of the international community for having carried out a swift

IMF-sponsored adjustment programme (which eventually unravelled). It was not fashionable then to carry out a nonradically inspired analysis of any country's inherent capability to service its accumulated foreign debt.(19)

As a counter argument, the Philippines lived through 1984 with no commercial financing and in 1985 the projected foreign fund inflow did not materialize (see Table 2.3). Instead of begging for money that was in any case not available, the country could have taken a more aggressive debt negotiating stance.(20)

- c) The government should have reduced unnecessary and avoidable expenditures. For instance, expenditures related to defence and the election exercises should have been cut; and a programme to privatize the non-performing corporations whose debt obligations had been taken over by the government should have been started without delay.
- 2. Maintaining credits for industry. The government (and its sponsor, the IMF) should have made credit facilities available to those sectors whose expansion would have been consistent with economic adjustment, notably manufactured exports and small domestic import-substituting industries for example through a selective credit programme. This would have permitted exporters to exploit the 1984 world export boom and import-substituters to take advantage of the devaluations of the peso.

By contrast, the credit programme that was put in place was directed at removing special credit accommodations. The Bretton Woods agencies viewed the crisis as the opportunity for completing the domestic financial liberalization programme, an attitude that stemmed from their long experience in the recalcitrance of the government. These special accommodations were heavily biased in favour of the large, non-tradeable projects.(21)

3. Gradual devaluation and export subsidies. The government should have pursued a policy that combined a devaluation, say back to 1978 real exchange rate level, and temporary export subsidies. A depreciation back to 1972 real levels should have been undertaken only gradually, when the international reserves position had been restored.

By contrast, the devaluations of October 1983 and June 1984 brought the exchange rate back to 1972 levels in one year and induced rapid inflation. A brief experiment with a crawling peg in 1981 was interpreted as a failure as it was soon overtaken by currency speculation.(22) This experiment was, however, carried out in the context of a large, and growing, government budget deficit. A more gradual devaluation might have been effective in conjunction with the first policy suggestion of finding a solution to the large government budget deficit.

- Gradual monetary growth. Instead of the punitive IMF 4. ceilings, which actually required that reserve money restored to its level before the May 1984 elections, a growth in reserve money consistent with a 1.0 per cent real growth should have been implemented in 1984. Higher monetary ceilings would have been quite acceptable to the government. It is true that, given past experience, higher ceilings by themselves would not have ensured that the additional resources would have been applied to real adjustment. But this political judgement, which probably does not seek to have a reputation of even being would still not have capable of making, justified of a ceiling based on pre-May 1984 especially as the inflation in 1984 was caused devaluations, rather than by the increase in liquidity.
- 5. Avoid disintermediation. The disintermediation that characterized the adjustment could have been avoided. There should never have been any significant issue of interest bearing bills by the central bank and interest rates should not have been allowed to shoot up to astronomical levels.

These policies might have seemed unavoidable to the Marcos government when the inflationary process had been started and the monetary targets had to be met before the end of 1984. In such a situation, a government that had more confidence in its domestic support might have chosen not to meet the implicit IMF targets for 1984. With hindsight, an economic management that permitted the nominal interest rate to be two points higher at the beginning of 1983, peaking at 20 per cent in the last three months of the same year, would have been an effective policy, as demonstrated in the simulations that we report below.

All of these suggestions point toward an earlier and more gradualist stabilization programme, implying that adjustment would be undertaken over a more extended period.

#### V. SOME LESSONS

Let us sum up here some of the elements that were part of the 1983-85 adjustment experience in the Philippines.

- 1. The first lesson is that for an economy such as that of the Philippines where labour and other human costs of operating the economy's production processes do not adjust to (or through) inflation,(23) a monetarist programme which depends on the constriction of credit to solve the external imbalance (stablization) is effective.
- 2. When such a monetarist programme does work in an economy such as the Philippines, it works with a vengeance. Since working capital is the first to be constrained and since such capital tends to be almost wholly raised from the financial system, a monetarist programme will immediately shut down the manufacturing sector. However, the raising of the cost of working capital induces inflation even as real liquidity is declining drastically. General inflation unmatched by income increases leads to reduced real incomes and reduced domestic demand.
- monetarist programme that works 3. through constriction of credit has a very poor chance of inducing a sustainable adjustment because it kills off investment. In an economy such as the Philippines, where as of as 70 per cent GDP can be classified as non-tradeables, an enormous amount of investment is required to increase the domestic production of tradeables. But tight financial credit will not permit this to occur.
- 4. The cost to the human population of such a programme is enormous. As Table 5.1 shows, there has recently been a marked increase in the proportion of preschool children with less than 85 per cent of the standard weight to height ratio especially in the Manila region. The human cost of a programme that did not even put in place a real adjustment is deeply negative.

The IMF must work with the government currently in 5. power. Even though the IMF has an overall framework which, at least hypothetically, 'will work' in some fashion, such a often not fully implemented. This framework is especially evident in the 1984 portion of the adjustment programme even though it was not officially under the IMF; but it was also true in 1985. Parts of the agenda that are interest of the government in power will parts that are not will implemented; be amended or implemented at all. The resulting programme will be in the interest of the government, which is not necessarilv consistent with any real success in adjustment.

Assuming, for the sake of argument, that the IMF economic model is correct, it is highly unlikely that any government in the Philippines will fully accept its policy prescriptions. The recent experience shows that in a very authoritarian government it is possible to fulfill programme targets - but at the cost of killing off the very private sector on which the IMF approach depends. As an organization whose terms of reference are to deal with governments, it is often futile for the IMF to insist that the government implement its competitive model.

In the Philippine experience, the IMF targets were achieved, stabilization was attained, and but for the fact that the government was eventually overthrown, the members of the government succeeded in protecting their economic interests. Thus, the two active parties in the programme – the IMF and the government – managed to protect their own short-term interest while the nonparticipants bore the cost.

The prospects for the Philippine economy for the rest of the decade of the 1980s are not bright. The recent adjustment programme left many of the old industries at 40 per cent capacity utilization and very high incremental capital/output ratios (ICOR). It is unlikely that the country will recover the investment ratios approaching 30 per cent of GDP that it achieved in the 1970s. Even if an

investment ratio of 20 per cent were achieved, an ICOR of 8 would only permit an income growth rate of 2.5 per cent, below the 2.6 population growth rate. An ICOR of 4, the historical ICOR from 1960 to 1980, would permit 5 per cent annual growth.(24) Even if such a growth rate were to be sustained until 1990, per capita income in 1990 would still be 13.7 per cent lower than it was in 1980.

The key factor behind increasing the investment ratio is the debt service. Even with an average growth rate of around 5 per cent per year, interest service will still average 8 to 10 per cent of GNP for the rest of the decade. By basing its negotiating stance on the standard 18-month IMF standby, the new Aquino administration has chosen the orthodox strategy to deal with this problem. The experience of her predecssor, as this paper has shown, suggests clearly that this strategy can prove politically as well as economically fatal.

#### FOOTNOTES

- (1) See also Bellow and Others (1982).
- (2) There is some evidence that the country's oil purchasing operation was a channel through which the capital flight of the Marcos family had been carried out.
- (3) San Miguel Corporation, a beverage and processed food conglomerate.
- (4) The coconut industry programme had managed to replant 55,000 hectares.
- (5) See also Table 1.2
- (6) Lamberte, Montes and Others (1985).
- (7) The IMF programme targets were updated during the programme reviews in the period. The value of the original table is that the Philippine government attempted to religously fulfill the monetary targets in the November 1984 table even when the targets for the endogenous variables in that table were being seriously missed or over achieved.
- (8) Quote from the telex from the Prime Minister and Minister of Finance and the central bank governor to the IMF, multilateral finance agencies, and the commercial banks dated 2 November 1984.
- (9) The latter election was actually first announced in the United States in a television interview Marcos had with David Brinkley.
- (10) The week after 7 February 1986 election the central bank implemented the same strategy, mopping P15 billion

in one week, which is about 40.5 per cent of the outstanding reserve money at that time. The purpose was to meet the 1986 first quarter monetary targets of the IMF programme. But at this point the regime had only two weeks of life.

- (11) He eventually resigned his post in the financial institution.
- (12) The nature of this long standing problem is discussed in Bellow and Others (1982).
- (13) After the nickname of the central bank governor.
- (14) See Lamberte, Montes, and Others (1985), pp.15-16.
- (15) In fact, military officers, acting in their private capacity with the clearance of their superiors, accompanied the shipments.
- (16) See Lamberte, Montes, and Others (1985).
- (17) If Mr. Marcos had managed to stay in power after that period, a general crackdown on the 'legal opposition' was widely expected.
- (18) Of course, it should have commenced in 1979, after the second oil shock or in 1974, after the first oil shock.
- (19) Such an analysis has now become fashionable in the academic community, but unfortunately not so in the Bretton Woods agencies.
- (20) Even with the new Aquino government, the taking of a more aggressive negotiating stance continues to be an issue.

- (21) In fact the Development Bank of the Philippines lent more for real estate development projects than to agriculture.
- (22) The IMF programme which began in January 1983 was also intended to help ward off the speculation against the currency.
- (23) Such as in Taylor (1983), Chapter 5.
- (24) Some more detailed calculations are reported in Montes (1986).

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Table 1.1

NOMINAL AND REAL EFFECTIVE EXCHANGE PATES:
PHILIPPINES, 1970-1984
(1973 = 100)

Year	Nominal Effective Exchange Rate Index	Real Effective Exchange Rate Index
1970	85.94	98.89
1971	92.44	103.64
1972	97.09	107.18
1973	100.00	100.00
1974	99.82	83.79
1975	104.87	92.34
1976	103.48	89.03
1977	101.68	86.86
1978	103.60	88.31
1979	105.46	85.84
1980	109.31	87.16
1981	111.05	87.17
1982	115.68	87.74
1983	145.95	92.66
1984*	196.20*	96.85*

\*Using the exchange rates data for 2nd quarter of 1984 and assuming a 50% change in Philippine GDP deflator and a 5% change in the GDP deflator of US, Australia, Japan, France, Germany, Canada, United Kingdom.

Source: Table IV.1 of Lamberte, Montes and others [1985].

Table 1.2

PRINCIPAL MERCHANDISE EXPORTS
1984 TO 1936

PERCENT DISTRIBUTION

	At (	At Current Prices			At Constant Prices			
<u>Items</u>	1984	1985	1986	1984	1985	1986		
TOTAL MERCHANDISE EXPORTS	100.00	100.00	100.00	100.00	100.00	100.00		
PRINCIPAL MERCHANDISE								
EXPORTS	73.01	70.34	69.14	70.01	66.06	67.32		
1. Semiconductors and								
electronic microcircuits	23.43	21.44	17.18	26.64	17.29	16.04		
2. Garments	11.48	13.76	15.43	11.47	14.42	15.27		
3. Crude coconut oil	10.09	7.26	6.93	4.10	5.43	9.63		
4. Copper concentrates	2.14	1.87	1.95	4.27	3.18	3.60		
<ol><li>Centrifugal sugar</li></ol>	5.34	3.22	2.08	7.45	3.70	1.83		
6. Lumber	2.03	2.01	2.15	1.27	1.42	1.20		
<ol><li>Gold from copper ores</li></ol>	1.98	2.21	3.45	0.65	0.83	1.03		
<ol><li>Iron agglomerates</li></ol>								
(sinters)	2.01	2.10	1.30	1.03	1.21	0.94		
9. Banana	2.27	2.51	2.88	1.88	2.18	2.17		
10. Dessicated coconut	2.01	1.67	0.92	0.72	0.72	0.67		
ll. Copra oil, cake & meal	0.75	0.79	1.57	0.69	0.98	1.61		
12. Plywood	0.98	1.03	1.12	0.73	0.83	0.75		
13. Canned pineapple	1.67	1.96	1.86	1.26	1.61	1.37		
14. Prepared tuna	0.84	1.04	1.11	1.28	1.71	1.65		
15. Coffee, not roasted	1.44	1.54	2.56	0.99	1.10	1.35		
16. Bars, rods, unworked,								
copper	2.06	3.70	3.49	4.06	7.86	6.69		
<pre>17. Shrimps and prawns</pre>	0.66	1.38	2.07	0.72	1.09	1.24		
18. Logs	1.84	0.87	0.57	0.79	0.50	0.28		
Others	26.99	29.66	30.86	29.99	33.94	32.68		

Source: National Accounts Staff, December 1986.

Table 1.3 Trade Balance Trends

			Merchandise		
	Growth	Rate of	Trade Balance	Terms o	
	Mercha	indi se	(Deficit)	Level	Change
Year	Exports	Imports	as Pct to GNP	(1972=100)	(Percent
1970	24.3	-3.7	(0.4)	n.a.	
1971	7.0	8.8	(0.6)	n.a.	
1972	-2.7	3.7	(1.3)	100.0	
1973*	70.6	29.8	2.2	113.3	13.3
1974+	44.5	96.9	(2.8)	114.5	1.1
1975	-15.8	10.1	(7.4)	87.8	-23.3
1976	12.2	5.1	(5.9)	77.7	-11.5
1977	22.4	7.7	(3.7)	71.0	-8.6
1978#	8.7	20.9	(5.4)	78.4	10.4
1979	34.3	29.8	(5.2)	86.6	10.5
1980	25.8	25.8	(5.5)	76.7	-11.4
1981&	-1.1	2.8	(5.8)	79.0	3.0
1982	-12.3	-3.5	(6.7)	72.9	-7.7
1983	-0.3	-2.3	(7.3)	8.03	-16.6
1984	7.7	-18.9	(2.1)	59.8	-1.6
1985	-14.2	-15.7	(1.5)	55.1	-7.9

\*Commodity boom

Source of basic data: Central Bank of the Philippines

<sup>+</sup>First oil shock

<sup>#</sup>Second oil shock

<sup>&</sup>amp;Monetarist recession

Table 1.4

TOTAL EXTERNAL LIABILITIES
(In Million US \$)

	1983		1984	1985	Projection 1986
Item	Oct 17	Dec 31	Dec 31	Dec 31	Dec 31
By Type of Debt	24,095	24,816	25,418	26,252	27,097
Medium- and long-term	15,080	14,412	15,926	17,679	21,671
IMF	1,186	1,166	973	1,232	1,146
Others	13,894	14,246	14,953	16,447	20,525
Short-term	9,015	9,404	9,492	8,573	5,426
Trade	4,469	4,614	5,274	4,854	4,452
Non-trade	4,546	4,790	4,218	3,719	974
By Borrower	24,095	24,816	25,418	26,252	27,097
Non-banking system	16,077	16,521	17,188	17,376	16,606,
Public	11,606	11,802	12,341	12,358	
Private	4,471	4,719	4,847	5,018	
Banking system	8,018	8,295	8,230	8,876	10,491
Central Bank	3,962	3,971	4,113	5,923	7,155
Commercial banks	4,056	4,324	4,117	2,953	3,3362
By Creditor	24,095	24,816	25,418	26,252	27,097
Commercial banks	14,427	14,674	14,721	14,474	15,179
Other financial	1,013	1,014	1,089	795	998
Suppliers	2,682	2,885	3,103	3,264	2,541
Multilateral	3,775	3,996	4,090	4,486	4,820
Bilateral	2,058	2,108	2,276	2,860	<b>3,5</b> 59
Export credit	567	575	656	786	
Others	1,491	1,533	1,620	2,074	• •
Others	140	139	139	373	

Source: Central Bank of the Philippines, Quarterly Economic and Financial Report, December 1985.

 $<sup>^{\</sup>mathrm{1}}$ Balances before adjustment of Central Bank assumed liabilities.

Includes rescheduled Paris Club accounts (inclusive of arrears and two-thirds of downpayment on interest payable in 1986 and 1987.

TABLE 1.5:
INDUSTRIES RANKED ACCORDING TO EFFECTIVE PROTECTION RATE (EPR),
SHARE OF EMPLOYMENT TO TOTAL MANUFACTURING AND
DEGREE OF CONCENTRATION IN METRO MANILA,
1980

Righ EPR Industries				
Meat products, canning and preserving of fruits 635.1 2.2 20.1  Articles of pulp, paper and paperboard 158.5 3.8 56.0  Rice, corn and other grain mill products 137.2 4.7 5.0  Softdrinks and other beverages  Soap and other washing and cleansing compounds 106.1 2.8 2.9  Soap and other washing and cleansing compounds 98.5 0.5 80.6  Other made-up textile goods 93.3 3.2 4 7.7  Miscellaneous manufacture 90.7 1.17 23.5  Manufacture of bakery products, cocoa, chocolate sugar confectionary, dessicated coconut, ice, coffee and other manufacturing 72.3 8.3 22.8  Other fabricated metal products 68.4 4.0 13.3  Dairy products 62.3 0.6 17.1  Tobacco products 61.8 1.7 73.3  Batteries and other electric machinery apparatus, appliances and supplies 58.8 4.6 79.2  Glass and glass products 54.6 0.7 66.3  Other non-metallic mineral products 54.3 1.9 11.9  Pulp, paper and paperboard manufacturing 47.5 1.7 71.4  Other chemical products 47.0 3.5 79.1  Plastic materials  Printing, bookbirding and other allied products 39.6 2.1 53.2  Paint, varnishes and related compounds 39.5 1.9 60.3  Non-ferrous metal basic industries 33.6 0.7 16.3  Ranufacture of cement 29.6 0.8 5.0  Hanufacture of cement 29.6 0.8 5.0  Hanufacture of rubber products 28.7 2.4 19.5  Hanufacture of trabport equipment 27.0 10.3 16.7  Hanufacture of trabport equipment 27.0 10.3 16.7  Hanufacture of industrial chemicals 20.4 2.6 46.2  Basic ferrous metal industries 19.1 1.6 70.6  Hanufacture of industrial chemicals (cx) 10.3 16.7  Hanufacture of industrial chemicals (cx) 10.3 16.7  Hanufacture of machineries except electrical 20.4 2.6 46.2  Basic ferrous metal industries 19.1 1.6 70.6  Hanufacture of industrial preparations 1.0 2.9 -  Industries with negative EFR, 1980  Footwear (1.2 1.2 2.3 1.4 0.0 3.5 2.9  Tother wood, cane and cork products 4.6 7.2 12.2  Furnitures and fixtures 5.2 3.6 21.2  Hanufacture of venere, plyvood and other lumber 5.0 10.3 15.0 2.9 6  Other wood, cane and cork products 5.0 10.3 15.0 2.9 6  Other wood, cane and cork products 5.0 10.3 15.0 2.9 6	Sector	EPR	to Total	Establishment
Meat products, canning and preserving of fruits 635.1 2.2 20.1  Articles of pulp, paper and paperboard 158.5 3.8 56.0  Rice, corn and other grain mill products 137.2 4.7 5.0  Softdrinks and other beverages  Soap and other washing and cleansing compounds 106.1 2.8 2.9  Soap and other washing and cleansing compounds 98.5 0.5 80.6  Other made-up textile goods 93.3 3.2 4 7.7  Miscellaneous manufacture 90.7 1.17 23.5  Manufacture of bakery products, cocoa, chocolate sugar confectionary, dessicated coconut, ice, coffee and other manufacturing 72.3 8.3 22.8  Other fabricated metal products 68.4 4.0 13.3  Dairy products 62.3 0.6 17.1  Tobacco products 61.8 1.7 73.3  Batteries and other electric machinery apparatus, appliances and supplies 58.8 4.6 79.2  Glass and glass products 54.6 0.7 66.3  Other non-metallic mineral products 54.3 1.9 11.9  Pulp, paper and paperboard manufacturing 47.5 1.7 71.4  Other chemical products 47.0 3.5 79.1  Plastic materials  Printing, bookbirding and other allied products 39.6 2.1 53.2  Paint, varnishes and related compounds 39.5 1.9 60.3  Non-ferrous metal basic industries 33.6 0.7 16.3  Ranufacture of cement 29.6 0.8 5.0  Hanufacture of cement 29.6 0.8 5.0  Hanufacture of rubber products 28.7 2.4 19.5  Hanufacture of trabport equipment 27.0 10.3 16.7  Hanufacture of trabport equipment 27.0 10.3 16.7  Hanufacture of industrial chemicals 20.4 2.6 46.2  Basic ferrous metal industries 19.1 1.6 70.6  Hanufacture of industrial chemicals (cx) 10.3 16.7  Hanufacture of industrial chemicals (cx) 10.3 16.7  Hanufacture of machineries except electrical 20.4 2.6 46.2  Basic ferrous metal industries 19.1 1.6 70.6  Hanufacture of industrial preparations 1.0 2.9 -  Industries with negative EFR, 1980  Footwear (1.2 1.2 2.3 1.4 0.0 3.5 2.9  Tother wood, cane and cork products 4.6 7.2 12.2  Furnitures and fixtures 5.2 3.6 21.2  Hanufacture of venere, plyvood and other lumber 5.0 10.3 15.0 2.9 6  Other wood, cane and cork products 5.0 10.3 15.0 2.9 6  Other wood, cane and cork products 5.0 10.3 15.0 2.9 6	High FPR Industries			
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Articles of pulp, paper and paperboard Rice, corn and other grain mill products 137.2 4.7 5.0 Softdrinks and other beverages 106.1 2.8 2.9 Soap and other washing and cleansing compounds 98.5 0.5 80.6 Soap and other washing and cleansing compounds 98.5 0.5 80.6 Soap and other washing and cleansing compounds 98.5 0.5 80.6 Soap and other washing and cleansing compounds 98.5 0.5 80.6 Soap and other washing and cleansing compounds 98.5 0.5 80.6 Soap and other washing and cleansing compounds 98.5 0.5 80.6 Soap and other mach compounds 98.5 0.5 80.6 Soap and other mach compounds 98.5 0.5 80.6 Soap and other manufacturing 90.7 1.17 23.5 Soap and other annufacturing 72.3 8.3 2.4 7.7 Soap and other fabricated metal products 68.4 4.0 13.3 Soap and other fabricated metal products 61.8 1.7 73.3 Soap and other electric machinery apparatus, appliances and supplies 58.8 4.6 79.2 Soap and other electric machinery apparatus, appliances and supplies 58.8 4.6 0.7 66.3 Control of the compounds 58.6 0.7 66.3 Control of the compounds 98.5 0.7 9.1 Plastic materials 99.6 0.7 66.3 Control of the compounds 99.6 2.1 53.2 Plastic materials 99.6 2.1 53.2 Plastic materials 99.6 2.1 53.2 Plastic materials 99.6 0.8 5.0 Soap and other allied products 99.6 0.8 5.0 Soap and other soap and related compounds 99.5 1.9 60.3 Soap and other soap and related compounds 99.5 1.9 60.3 Soap and other soap and related compounds 99.5 1.9 60.3 Soap and other soap and related compounds 99.5 1.9 60.3 Soap and other soap and related compounds 99.5 1.9 60.3 Soap and related compounds 99.5 1.9 60.3 Soap and other soap and related compounds 99.5 1.9 60.3 Soap and other products 99.6 0.8 5.0 Soap and other soap and other 99.6 0.8 5.0 Soap and other soap and other 99.6 0.8 5.0 Soap and other 99.6 Soap and other 99.6 Soap and 0.8 5.0 Soap and 0.1 Soap and 0	Meat products, canning and preserving of fruits	635.1	2.2	20.1
Rice, corn and other grain mill products 137.2				
Softdrinks and other beverages         106.1         2.8         2.9           Soap and other washing and cleansing compounds         98.5         0.5         80.6           Other made-up textile goods         93.3         2.4         7.7           Miscellaneous manufacture         90.7         1.17         23.5           Manufacture of bakery products, cocca, chocolate sugar confectionary, dessicated coconut, ice, coffee and other manufacturing         72.3         8.3         22.8           Other fabricated metal products         68.4         4.0         19.3           Dairy products         62.3         0.6         17.1           Tobacco products         61.8         1.7         73.3           Batteries and other electric machinery apparatus, appliances and supplies         58.8         4.6         79.2           Glass and glass products         54.6         0.7         66.3           Other non-metallic mineral products         54.6         0.7         66.3           Other chemical products         47.5         1.7         71.4           Other chemical products         47.0         3.5         79.1           Fullp, paper and paperboard manufacturing         47.5         1.7         71.4           Other chemical products         47.0 <td< td=""><td></td><td></td><td>-</td><td>-</td></td<>			-	-
Soap and other washing and cleansing compounds         98.5         0.5         80.6           Other made-up textile goods         93.3         2.4         7.7           Miscellaneous manufacture         90.7         1.17         23.5           Manufacture of bakery products, cocoa, chocolate sugar confectionary, desicated coconut, ice, coffee and other manufacturing         72.3         8.3         22.8           Other fabricated metal products         62.3         0.6         17.1           Dairy products         62.3         0.6         17.1           Tobacco products         61.8         1.7         73.3           Batteries and other electric machinery apparatus, appliances and supplies         58.8         4.6         79.2           Glass and glass products         54.3         1.9         11.9           Other non-metallic mineral products         54.3         1.9         11.9           Fulp, paper and paperboard manufacturing         47.5         1.7         71.4           Other chemical products         47.0         3.5         79.1           Plastic materials         47.0         3.5         79.1           Printing, bookbinding and other allied products         39.5         1.9         60.3           Fats and oils         32.1				
Other made-up textile goods         93.3         2.4         7.7           Miscellaneous manufacture         90.7         1.17         23.5           Miscellaneous manufacture         90.7         1.17         23.5           Manufacture of bakery products, cocoa, chocolate sugar confectionary, dessicated occonut, ice, coffee and other manufacturing         72.3         8.3         22.8           Other fabricated metal products         68.4         4.0         19.3           Dairy products         62.3         0.6         17.1           Tobacco products         61.8         1.7         73.3           Batteries and other electric machinery apparatus, appliances and supplies         58.8         4.6         79.2           Glass and glass products         54.6         0.7         66.3           Other non-metallic mineral products         54.3         1.9         11.9           Pulp, paper and paperboard manufacturing         47.5         1.7         71.4           Other non-metallic mineral products         47.0         3.5         79.1           Pulp, paper and paperboard manufacturing         47.5         1.7         71.4           Other mon-metallic mineral products         49.0         3.5         79.1           Pulps parating in paperboard manufacturing		98.5	0.5	
Miscellaneous manufacture  Manufacture of bakery products, cocoa, chocolate sugar confectionary, dessicated coconut, ice, coffee and other manufacturing Other fabricated metal products  Eatteries and other electric machinery apparatus, appliances and supplies Glass and glass products  Other non-metallic mineral products  Other chemical products  Pulp, paper and paperboard manufacturing  Other chemical products  Printing, bookbinding and other allied products  Paint, varnishes and related compounds  Non-ferrous metal basic industries  Fats and oils  Manufacture of cement  Manufacture of rubber products  Manufacture of trubber products  Manufacture of machineries except electrical Basic ferrous metal industries  (excluding electrical)  Petroleum refineries and other petroleum products  (excluding electrical)  Petroleum refineries and other petroleum products  Industries with negative EPR, 1980  Footwear  Other wood, cane and cork products  Fabricated structural metal products  -0.2  -10.5		93.3	2.4	7.7
sugar confectionary, dessicated coconut, ice, coffee and other manufacturing 72.3 8.3 22.8 Other fabricated metal products 68.4 4.0 19.3 Eairy products 62.3 0.6 17.1 Tobacco products 61.8 1.7 73.3 Eatteries and other electric machinery apparatus, appliances and supplies 58.8 4.6 79.2 Glass and glass products 54.6 0.7 66.3 Other non-metallic mineral products 54.6 0.7 66.3 Other non-metallic mineral products 54.3 1.9 11.9 Fulp, paper and paperboard manufacturing 47.5 1.7 71.4 Other chemical products 47.0 3.5 79.1 Flastic materials 44.3 2.0 83.1 Printing, bookbinding and other allied products 39.6 2.1 53.2 Paint, varnishes and related compounds 39.5 1.9 60.3 Non-ferrous metal basic industries 33.6 0.7 16.3 Fats and oils 32.1 0.7 16.3 Fats and oils 32.1 0.7 16.3 Fats and oils 32.1 0.7 16.3 Fats and coils 7.0 10.3 40.0 Textile and knitting mill products 28.7 2.4 19.5 Famufacture of trunsport equipment 27.0 10.3 40.0 Textile and knitting mill products 26.0 10.3 16.7 Manufacture of industrial chemicals 18.6 1.3 62.9 Office, computing and accounting machines (excluding electrical) 12.7 0.20 78.1 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Petroleum refineries and other petroleum refineries 12.9 Petroleum refineries 12.9 Petroleum refineries 12.9 Petroleum refineries 12.		90.7	1,17	23.5
coffee and other manufacturing         72.3         8.3         22.8           Other fabricated metal products         68.4         4.0         13.3           Bairy products         62.3         0.6         17.1           Tobacco products         61.8         1.7         73.3           Batteries and other electric machinery apparatus, appliances and supplies         58.8         4.6         79.2           Glass and glass products         54.6         0.7         66.3           Other non-metallic mineral products         54.3         1.9         11.9           Fulp, paper and paperboard manufacturing         47.5         1.7         71.4           Other chemical products         47.0         3.5         79.1           Plastic materials         44.3         2.0         83.1           Printing, bookbinding and other allied products         39.6         2.1         53.2           Paint, varnishes and related compounds         39.5         1.9         60.3           Non-ferrous metal basic industries         39.5         1.9         60.3           Ron-ferrous metal basic industries         32.1         0.7         16.3           Fats and oils         32.1         0.7         16.3           Manufacture of cement <td></td> <td></td> <td></td> <td></td>				
Description		72.3	8.3	22.8
Dairy products		68,4	4.0	19.3
Tobacco products		62.3	0.6	17.1
Batteries and other electric machinery apparatus, appliances and supplies 58.8 4.6 79.2 Glass and glass products 54.6 0.7 66.3 Cther non-metallic mineral products 54.3 1.9 11.9 Pulp, paper and paperboard manufacturing 47.5 1.7 71.4 Other chemical products 47.0 3.5 79.1 Plastic materials 47.0 3.5 79.1 Plastic materials 44.3 2.0 83.1 Printing, bookbirding and other allied products 39.6 2.1 53.2 Paint, varnishes and related compounds 39.5 1.9 60.3 kon-ferrous metal basic industries 33.6 0.7 16.3 Fats and oils 32.1 0.7 16.3 Manufacture of cement 29.6 0.8 5.0 Manufacture of rubber products 28.7 2.4 19.5 Memufacture of trunsport equipment 27.0 10.3 40.0 Textile and knitting mill products 26.0 10.3 16.7 Manufacture of industries except electrical 20.4 2.6 46.2 Basic ferrous metal industries 19.1 1.6 70.6 Manufacture of industrial chemicals 19.6 1.3 62.9 Office, computing and accounting machines (excluding electrical) 12.7 0.20 78.1 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Medicinal and pharmaceutical preparations 1.0 2.9 - Industries with negative EPR, 1980  Footwear -3.1 1.0 39.5 Through the products -4.6 7.2 12.2 Furnitures and fixtures -5.2 3.6 21.2 Manufacture of veneer, plywood and other lumber -5.2 3.6 21.2 Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4 Fabricated structural metal products -10.3 15.0 29.6 Other wood, cane and cork products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for	and the second s	61.8	1.7	73.3
Appliances and supplies   S8.8   4.6   79.2		-		
Glass and glass products Other non-metallic mineral products S4.3 1.9 11.9 Pulp, paper and paperboard manufacturing 47.5 1.7 71.4 Other chemical products 47.0 3.5 79.1 Plastic materials 44.3 2.0 83.1 Printing, bookbinding and other allied products 39.6 2.1 53.2 Paint, varnishes and related compounds 39.5 1.9 60.3 Non-ferrous metal basic industries 33.6 0.7 16.3 Fats and oils 32.1 0.7 16.3 Fats and oils 32.1 0.7 16.3 Fanufacture of cement 29.6 0.8 5.0 Manufacture of rubber products 28.7 2.4 19.5 Menufacture of transport equipment 27.0 10.3 40.0 Textile and knitting mill products 26.0 10.3 16.7 Manufacture of machineries except electrical 20.4 2.6 46.2 Basic ferrous metal industries 19.1 1.6 70.6 Manufacture of industrial chemicals 18.6 1.3 62.9 Office, computing and accounting machines (excluding electrical) 12.7 0.20 78.1 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Medicinal and pharmaceutical preparations 1.0 2.9 -  Industries with negative EPR, 1980  Footwear -3.1 1.0 39.5 Other wood, cane and cork products -4.6 7.2 12.2 Furnitures and fixtures -5.2 3.6 21.2 Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4 Fabricated structural metal products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for		58.8	4.6	79.2
Other non-metallic mineral products Pulp, paper and paperboard manufacturing Pulp, paper and paperboard manufacturing Pulp, paper and paperboard manufacturing Puls tic materials Printing, bookbinding and other allied products Paint, varnishes and related compounds Printing, bookbinding and other allied products Paint, varnishes and related compounds Printing, bookbinding and other allied products Paint, varnishes and related compounds Printing, bookbinding and other allied products Paint, varnishes and related compounds Printing, bookbinding and other allied products Printing, bookbinding and other allied products Printing, bookbinding and other paint and the said and the said and the said and sa	• • • • • • • • • • • • • • • • • • • •	54.6	0.7	66.3
Pulp, paper and paperboard manufacturing 47.5 1.7 71.4 Other chemical products 47.0 3.5 79.1 Plastic materials 44.3 2.0 83.1 Printing, bookbinding and other allied products 39.6 2.1 53.2 Paint, varnishes and related compounds 39.5 1.9 60.3 Non-ferrous metal basic industries 33.6 0.7 16.3 Fats and oils 32.1 0.7 16.3 Fats and oils 32.1 0.7 16.3 Manufacture of cement 29.6 0.8 5.0 Manufacture of trubber products 28.7 2.4 19.5 Menufacture of trubber products 26.0 10.3 40.0 Textile and knitting mill products 26.0 10.3 16.7 Manufacture of machineries except electrical 20.4 2.6 46.2 Basic ferrous metal industries 19.1 1.6 70.6 Manufacture of industrial chemicals 18.6 1.3 62.9 Office, computing and accounting machines (excluding electrical) 12.7 0.20 78.1 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Medicinal and pharmaceutical preparations 1.0 2.9 - Industries with negative EPR, 1980  Footwear		-		
Other chemical products			- · ·	
Plastic materials Printing, bookbirding and other allied products Printing, bookbirding and other allied products Paint, varnishes and related compounds Whon-ferrous metal basic industries Paint, varnishes and related compounds Whon-ferrous metal basic industries Pats and oils Wanufacture of cement Plastic metal products Pats and oils Pats and oils Plastic metal products Plastic metal pr				
Printing, bookbinding and other allied products 39.6 2.1 53.2 Paint, varnishes and related compounds 39.5 1.9 60.3 Non-ferrous metal basic industries 32.1 0.7 16.3 Fats and oils 32.1 0.7 16.3 Manufacture of cement 29.6 0.8 5.0 Manufacture of rubber products 28.7 2.4 19.5 Manufacture of transport equipment 27.0 10.3 40.0 Textile and knitting mill products 26.0 10.3 16.7 Manufacture of machineries except electrical 20.4 2.6 46.2 Basic ferrous metal industries 19.1 1.6 70.6 Manufacture of industrial chemicals 18.6 1.3 62.9 Office, computing and accounting machines (excluding electrical) 12.7 0.20 78.1 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Medicinal and pharmaceutical preparations 1.0 2.9 -  Industries with negative EPR, 1980  Footwear -3.1 1.0 39.5 Other wood, cane and cork products -4.6 7.2 12.2 Furnitures and fixtures -5.2 3.6 21.2 Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4 Fabricated structural metal products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for				
Paint, varnishes and related compounds Non-ferrous metal basic industries 33.6 0.7 16.3 Fats and oils 32.1 0.7 16.3 Manufacture of cement 29.6 0.8 5.0 Manufacture of rubber products 28.7 2.4 19.5 Manufacture of transport equipment 27.0 10.3 16.7 Manufacture of machineries except electrical 20.4 26.0 Manufacture of industries 19.1 1.6 70.6 Manufacture of industrial chemicals 0ffice, computing and accounting machines (excluding electrical) 12.7 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Medicinal and pharmaceutical preparations 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0		-		
Non-ferrous metal basic industries   33.6   0.7   16.3     Fats and oils   32.1   0.7   16.3     Manufacture of cement   29.6   0.8   5.0     Manufacture of trubber products   28.7   2.4   19.5     Manufacture of trubber products   26.0   10.3   40.0     Textile and knitting mill products   26.0   10.3   16.7     Manufacture of machineries except electrical   20.4   2.6   46.2     Basic ferrous metal industries   19.1   1.6   70.6     Manufacture of industrial chemicals   18.6   1.3   52.9     Office, computing and accounting machines   (excluding electrical)   12.7   0.20   78.1     Petroleum refineries and other petroleum products   12.4   0.01   -     Sugar milling and refining   1.1   3.4   5.0     Medicinal and pharmaceutical preparations   1.0   2.9   -    Industries with negative EPR, 1980     Footwear   -3.1   1.0   39.5     Other wood, cane and cork products   -4.6   7.2   12.2     Furnitures and fixtures   -5.2   3.6   21.2     Manufacture of veneer, plywood and other lumber   -10.0   5.3   13.4     Fabricated structural metal products   -10.3   15.0   29.6     Other wearing apparel   -10.5   14.1   22.3     Leather and other leather products except for		39.5	1.9	60.3
Manufacture of cement 29.6 0.8 5.0 Manufacture of rubber products 28.7 2.4 19.5 Manufacture of transport equipment 27.0 10.3 40.0 Textile and knitting mill products 26.0 10.3 16.7 Manufacture of machineries except electrical 20.4 2.6 46.2 Basic ferrous metal industries 19.1 1.6 70.6 Manufacture of industrial chemicals 18.6 1.3 62.9 Office, computing and accounting machines (excluding electrical) 12.7 0.20 78.1 Petroleum refineries and other petroleum products 12.4 0.01 – Sugar milling and refining 1.1 3.4 5.0 Medicinal and pharmaceutical preparations 1.0 2.9 – Industries with negative EPR, 1980  Footwear -3.1 1.0 39.5 Other wood, cane and cork products -4.6 7.2 12.2 Furnitures and fixtures -5.2 3.6 21.2 Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4 Fabricated structural metal products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for		33.6	0.7	16.3
Manufacture of rubber products  Manufacture of transport equipment  Textile and knitting mill products  Manufacture of machineries except electrical  Basic ferrous metal industries  Manufacture of industrial chemicals  Office, computing and accounting machines  (excluding electrical)  Petroleum refineries and other petroleum products  Sugar milling and refining  Medicinal and pharmaceutical preparations  Footwear  Footwear  Other wood, cane and cork products  Manufacture of veneer, plywood and other lumber  -10.0  Table 19.5  19.5  10.3  10.3  10.6  10.3  10.6  10.6  10.7  10.6  10.6  10.6  10.7  10.6  10.6  10.7  10.6  10.7  10.0  10.7  10.0  10	Fats and oils	32.1	0.7	16.3
Manufacture of transport equipment 27.0 10.3 40.0 Textile and knitting mill products 26.0 10.3 16.7 Manufacture of machineries except electrical 20.4 2.6 46.2 Basic ferrous metal industries 19.1 1.6 70.6 Manufacture of industrial chemicals 18.6 1.3 62.9 Office, computing and accounting machines (excluding electrical) 12.7 0.20 78.1 Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Medicinal and pharmaceutical preparations 1.0 2.9 -  Industries with negative EPR, 1980  Footwear -3.1 1.0 39.5 Other wood, cane and cork products -4.6 7.2 12.2 Furnitures and fixtures -5.2 3.6 21.2 Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4 Fabricated structural metal products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for	Manufacture of cement	29.6	0.8	5.0
Textile and knitting mill products  Manufacture of machineries except electrical  Basic ferrous metal industries  Manufacture of industrial chemicals  Office, computing and accounting machines  (excluding electrical)  Petroleum refineries and other petroleum products  Sugar milling and refining  Medicinal and pharmaceutical preparations  Footwear  Other wood, cane and cork products  Manufacture of veneer, plywood and other lumber  Fabricated structural metal products  Other wearing apparel  Other wearing apparel  Location 10.3  10.3  10.3  10.6  10.6  10.7  10.0	Manufacture of rubber products	28.7	2.4	19.5
Textile and knitting mill products  Manufacture of machineries except electrical  Basic ferrous metal industries  Manufacture of industrial chemicals  Office, computing and accounting machines  (excluding electrical)  Petroleum refineries and other petroleum products  Sugar milling and refining  Medicinal and pharmaceutical preparations  Footwear  Other wood, cane and cork products  Manufacture of veneer, plywood and other lumber  Fabricated structural metal products  Other wearing apparel  Other wearing apparel  Loud 10.3  Loud 2.6  Heid:  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.	Manufacture of transport equipment	27.0	10.3	40.0
Basic ferrous metal industries 19.1 1.6 70.6 Manufacture of industrial chemicals 18.6 1.3 62.9  Office, computing and accounting machines   (excluding electrical) 12.7 0.20 78.1  Petroleum refineries and other petroleum products 12.4 0.01 -  Sugar milling and refining 1.1 3.4 5.0  Medicinal and pharmaceutical preparations 1.0 2.9 -  Industries with negative EPR, 1980  Footwear -3.1 1.0 39.5  Other wood, cane and cork products -4.6 7.2 12.2  Furnitures and fixtures -5.2 3.6 21.2  Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4  Fabricated structural metal products -10.3 15.0 29.6  Other wearing apparel -10.5 14.1 22.3  Leather and other leather products except for		26.0	10.3	16.7
Manufacture of industrial chemicals  Office, computing and accounting machines (excluding electrical)  Petroleum refineries and other petroleum products  Sugar milling and refining  Medicinal and pharmaceutical preparations  Industries with negative EPR, 1980  Footwear  Footwear  Other wood, cane and cork products  Furnitures and fixtures  Manufacture of veneer, plywood and other lumber  Tabricated structural metal products  Other wearing apparel  Other wearing apparel  Other wearing apparel  Lather and other leather products except for	Manufacture of machineries except electrical	20.4	2.6	46.2
Office, computing and accounting machines  (excluding electrical)  Petroleum refineries and other petroleum products  Sugar milling and refining  Medicinal and pharmaceutical preparations  1.1 3.4 5.0  Medicinal and pharmaceutical preparations  1.0 2.9 -  Industries with negative EPR, 1980  Footwear  Footwear  Other wood, cane and cork products  Furnitures and fixtures  Manufacture of veneer, plywood and other lumber  Fabricated structural metal products  Other wearing apparel  Other wearing apparel  Leather and other leather products except for	Basic ferrous metal industries	19.1	1.6	70.6
(excluding electrical)  Petroleum refineries and other petroleum products  12.4  0.01  - Sugar milling and refining  1.1  3.4  5.0  Medicinal and pharmaceutical preparations  1.0  Industries with negative EPR, 1980  Footwear  Other wood, cane and cork products  Furnitures and fixtures  Manufacture of veneer, plywood and other lumber  Fabricated structural metal products  Other wearing apparel  Other wearing apparel  Leather and other leather products except for	Manufacture of industrial chemicals	18.6	1.3	62.9
Petroleum refineries and other petroleum products 12.4 0.01 - Sugar milling and refining 1.1 3.4 5.0 Medicinal and pharmaceutical preparations 1.0 2.9 -  Industries with negative EPR, 1980  Footwear -3.1 1.0 39.5 Other wood, cane and cork products -4.6 7.2 12.2 Furnitures and fixtures -5.2 3.6 21.2 Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4 Fabricated structural metal products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for	Office, computing and accounting machines			
Sugar milling and refining  Medicinal and pharmaceutical preparations  1.0  2.9  Industries with negative EPR, 1980  Footwear Other wood, cane and cork products Furnitures and fixtures Furnitures and fixtures Fabricated structural metal products Other wearing apparel Leather and other leather products except for	(excluding electrical)	12.7	0.20	78.1
Medicinal and pharmaceutical preparations 1.0 2.9 —  Industries with negative EPR, 1980  Footwear Other wood, cane and cork products —4.6 7.2 12.2  Furnitures and fixtures —5.2 3.6 21.2  Manufacture of veneer, plywood and other lumber —10.0 5.3 13.4  Fabricated structural metal products —10.3 15.0 29.6  Other wearing apparel —10.5 14.1 22.3  Leather and other leather products except for	Petroleum refineries and other petroleum products	12.4	0.01	_
Medicinal and pharmaceutical preparations 1.0 2.9 -  Industries with negative EPR, 1980  Footwear -3.1 1.0 39.5 Other wood, cane and cork products -4.6 7.2 12.2 Furnitures and fixtures -5.2 3.6 21.2 Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4 Fabricated structural metal products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for	Sugar milling and refining	1.1	3.4	5.0
Footwear Other wood, cane and cork products Furnitures and fixtures Manufacture of veneer, plywood and other lumber Fabricated structural metal products Other wearing apparel Leather and other leather products except for		1.0	2.9	-
Other wood, cane and cork products  Furnitures and fixtures  Manufacture of veneer, plywood and other lumber Fabricated structural metal products Other wearing apparel Leather and other leather products except for	Industries with negative EPR, 1980			
Other wood, cane and cork products  Furnitures and fixtures  Manufacture of veneer, plywood and other lumber Fabricated structural metal products Other wearing apparel Leather and other leather products except for	Footman	_2 1	1 0	30 5
Furnitures and fixtures  Manufacture of veneer, plywood and other lumber Fabricated structural metal products Other wearing apparel Leather and other leather products except for				
Manufacture of veneer, plywood and other lumber -10.0 5.3 13.4 Fabricated structural metal products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for				
Fabricated structural metal products -10.3 15.0 29.6 Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for				
Other wearing apparel -10.5 14.1 22.3 Leather and other leather products except for				· ·
Leather and other leather products except for				
		10 • 0	7.4.7	22.0
		-10.7	0.4	57.4

 $\frac{\text{Share of Mfg. Employment}}{\text{Total Philippines}} = \frac{1,814,000}{16,434,000} = 119$ 

Source: Table 1, Department of Economics [1986].

Table 1.6

PERCENT DISTRIBUTION OF REAL AND NOMINAL GROSS DOMESTIC PRODUCT, BY SECTOR, 1967-1982

	Non-t	radables	Ехро	rtables	Impo	rtables_
Year	Real	Nominal	Real	Real Nominal		Nominal
1967	70.3	72.2	15.4	15.6	14.3	12.2
1970	70.0	68.0	15.4	17.1	14.6	14.9
1973	67.7	65.8	15.1	16.8	17.2	17.4
1976	69.7	67.3	14.3	13.4	16.0	19.3
1979	70.1	66.5	13.7	14.7	16.2	18.9
1982	71.0	71.4	12.3	11.1	16.7	17.5

Source: Gonzales (1984). Table 3.

Table 1.7 Investment, Savings, and the Investment-Savings Gap (in percent of GNP%)

	Met_Sav	ings_to_GNP_R	atio_	Capital Consumption	Gross	Gross	Investment Savings
Year	Kousehol ds	Corporations	Gov't	Allowance		Investment	•
1974	8.2	2.5	4.6	8.6	23.8	25.1	1.3
1975	8.5	2.8	3.1	9.9	24.3	29.6	5.3
1976	10.9	3.1	1.0	9.6	25.4	31.3	5.9
1977	10.6	2.4	3.0	9.5	25.6	29.0	3.3
1978	8.4	2.9	3.9	9.5	24.7	29.0	4.3
19791	6.5	5.7	5.1	9.4	26.8	31.0	4.3
1980	6.0	5.5	5.0	9.3	25.7	30.7	5.0
1981	6.5	5.3	3.8	10.1	25.7	30.7	5.1
1982	3.4	4.4	3.0	10.3	21.2	28.8	7.6
1983	2.2	4.3	3.7	10.3	20.6	27.5	7.0
1984	-0.8	2.6	3.8	10.2	15.9	18.6	2.8

\*Totals may not add up due to rounding errors
\*Start of "countercyclical policy"

Source: National Economic Development Authority

Table 1.8
The Inflationary Process(1)

Variable	Short-Run(2) Elasticity	Long-Run(3) Elasticity		T-statistic(4)
Peso price of oil	0.176	0.553	0.634	3.20
Foreign exchange black market premium	0.017	0.055	0.042	0.84
Feso import price for non-fuels	0.192	0.603	7.232	4.20
Total liquidity(5) over real BNP	0.060	0.750	5.413	5. 81
Interest on 91-day treasury bills	0.138	0.434	0.925	5.82
Feso export price index	0.075	0.237	0.029	3.04
Legislated minimum wage	0.144	0.454	0.609	3.08
Price ceilings on food index	0.020	0.062	0.984	2.04
CPI Lagged one month			0.975	16.65
CPI lagged two months			-0.293	-5.29
Dummy for 1985			18.886	6.40

- (1) Based on the Monthly Single Equation Inflation Model of Mariano [1985] of the consumer price index. The equation is estimated from January 1972 to March 1985 with a dummy variable for 1985.
- (2) This is the elasticity of the annual inflation rate which is computed for any explanatory variable X as (dCPI/(CPI-CPI(-12)))/(dX/X)
- (3) The long run rate is that for which CPI = CPI(-1) = CPI(-2)
- (4) On the hypothesis that the coefficient is equal to zero
- (5) The actual variable is the sum, over the last four months, of the ratio of total liquidity each month to semestral GNP

Source: Mariano [1985], Tables 2 and 10.

Table 2.1

Effect on the Budget Deficit
of Contributions to Government Corporations

			Total	Hypothetical Budget Surplus (Deficit)			
		Budget	Contribution to Government	without C	ontribution		
		Deficit	Corporations	Level	As % of GNP		
	Year	(F_million)	(P_million)	(P_million)	(Percent)		
	.075		007	45043	40.50		
	1975	1,403	807	(596)	(0.5)		
	1976	2,349	2,196	(153)	(0.1)		
	1977	2,852	2,498	(354)	(0.2)		
	1978	2,167	2,877	710	0.4		
	1979	342	3,869	3,527	1.6		
	1980	3,387	5,244	1,857	0.7		
	1981	12,146	8,426	(3,720)	(1.4)		
	1982	14,405	9,308	(5,097)	(1.7)		
	1983	6,422	5,407	(1,015)	(0.3)		
	1984	8,714	10,248	1,534	0.4		
	Total	54,187	50,880	3,307	(0.1)		

Source of Data: Amatong and Others, [1985], Table 4.4 and 4.5.

Table 2.2 Budget and Current Account Deficits (in million pesos and percent)

Year	Budget Surplus (P_million)	Budget Deficit to GNP Ratio Deficit to GNP (percent)	Current Account Balance (P_million)	Current Account to GNP Ratio (percent)
1975	-1,403	-1.2	-6,071	-5.3
1976	-2,349	-1.8	-7,920	-5.9
1977	-2,852	-1.8	-4,872	-3.2
1978	-2,167	-1.2	-8,385	-4.7
1979	-342	-0.2	-9,763	-4.5
1980	-3,387	-1.3	-13,536	-5.1
1981	-12,146	-4.6	-15,338	-5.1
1982	-14,405	-4.7	-25,339	-7.6
1983	-6,422	-1.9	-26,394	-7.0
1984	-8,714	-2.3	-14,756	-2.7

Source:

Amatong (1985), pp. 17-18. NEDA Statistical Yearbook, 1985.

Table 2.3 November 1984 Framework for Adjustment versus Actual

		19	984	1985		19	86
	1983	Proj.	. Actual	Proj.	Actual	Proj.	Actual
External objectives							
Current account deficit (US\$ bn.	2.8	1.5	1.3	1.1		0.6	-0.9
(Percent of GNP)	8.1	5.2	3.9	4.1		2.3	-3.1
Exports (percent change in							
US\$ value)	-0.3	5.9	7.7	10.0	-14.1	11.0	1.4
Imports (percent change in							
US\$ value)	-2.3	-23.0	-18.9	-1.6	-15.8	3.4	-7.5
Trade balance (US\$ bn.)	-2.5	-0.5	-0.7	0.1	-0.5	0.5	-0.1
Net international reserves(1)							
(change in U.S. dollars)	-0.5	-0.4	0.5	2.5	2.8	•••	
Arrears (US\$ bn., end-period)	1.6	1.9	2.7				
	(In per	rcent of I	GNP)				
Savings and investment							
Gross domestic investment	27.1	22.0	19.2	22.5	16.2	23.0	14.0
Total savings	27.1	22.0	19.2	22.5	16.2	23.0	14.0
Gross national savings	19.0	16.8	15.3	18.4	16.2	20.7	n.a.
Foreign savings	8.1	5.2	3.9	4.1		2.3	n.a.
(	Percenta	ige increa	ase)				
Money (end-period)							
M3	19	10	7	13	10	12	5.0(2)
Reserve money	49	15	12	11	8	10	21.0(2)
GNP and prices							
Real GNP	1.1	-6	-6.8		-3.8		0.1
Consumer price index (end-period)	26.1	40-45	50.8	10-15	5.7	8-10	-0.3
Consumer price index (average)	10.0	45-50	50.3	20-25	23.1	10	0.8
Public compensation per employee	9.5	18	20.3	22	34.4	•••	n.a.

<sup>(1)</sup>Inclusive of external arrears

Source: Central Bank, Economic Memorandum, November 1984, Table 4, p. 17 and Quarterly Economic and Financial Report

<sup>(2)</sup>Up to September only.

Table 2.4
Control of Monetary Base
(Annual rates of change, percent)

		Net	Net	Net	_Claims_or	·
	Reserve	Foreign	Dómestic	Public	Deposit	
Quarter	Money	Assets	Assets	Sector	Banks	Other
1980.1	15.7	-3.6	32.6	-22.2	36.1	-128.3
. 2	12.4	-3.2	30.3	-10.9	42.9	-62.6
. 3	9.9	-4.0	19.2	-8.2	128.7	-305.9
. 4	10.7	-38.0	41.3	53.6	64.0	-227.3
1981.1	-2.4	-108.3	64.7	125.7	57.1	-428.7
.2	16.6	-111.3	125.0	536.6	71.1	-117.9
.3	15.5	-171.3	116.0	460.1	64.1	23.0
. 4	9.9	-214.8	72.0	96.2	30.9	343.3
1982.1	16.3	-1743.0	71.5	130.6	34.2	-319.3
.2	6.0	-1205.3	57.1	75.9	13.8	128.0
.3	4.0	-245.4	46.9	104.6	4.4	288.4
.4	4.8	-349.2	68.3	49.4	1.7	590.2
• •	7.0	347.2	00.3	77.7	1.,	370.2
1983.1	8.0	-138.5	53.2	15.4	5.6	832.3
.2	2.5	-220.7	79.8	1.3	-17.4	3481.1
.3	16.1	-195.5	89.9	-1.9	-38.8	2386.0
. 4	48.7	-92.5	70.3	33.4	-38.1	207.6
1984.1	45.4	-77.1	62.0	48.3	-87.5	259.5
.2	68.6	-78.6	74.9	56.5	-47.2	145.1
.3	62.5	-61.0	62.4	6.2	14.2	94.7
. 4	20.6	-48.4	36.1	-37.7	-42.6	76.5
1985.1	22.9	-56.7	42.7	-11.2	-137.9	69.2
.2	16.7	5.3	2.5	-27.9	-58.9	18.1
.3	13.8	-28.2	23.2	20.8	-53.2	35.2
.4	13.6	-63.7	44.0	109.4	24.3	37.6
• 7	10.0	-63.7	77.V	107.4	44.3	3/.0

Source: Central Bank of the Philippines

Table 2.5

CONSOLIDATED GOVERNMENT SECTOR DEFICIT
(as Percent of GNP)

	1983	1984	1985
National government deficit	-1.95	-1.86	-1.88
Monitored $\frac{1}{2}$ corporations deficit	-3.53	-2.20	-1.36
National government transfers to monitored corporations	1.32	1.08	0.61
Public sector borrowing requirement	-4.16	-2.98	-2.64
Deficit of government financial institutions (GFI)	-1.40	-1.62	-3.11
Net income of Central Bank	-3.64	-5.24	-2.61
Others $\frac{2}{}$	0.16	-0.04	0.15
National government transfers to GFIs and other corporations	0.82	1.58	2.10
Consolidated public sector deficit	-8.22	-8.30	-6.11

 $<sup>\</sup>frac{1}{2}$  "Monitored" under the IMF adjustment program.

 $<sup>\</sup>frac{2}{}$  Including other nonfinancial government institutions, local government, and the social security system.

Table 2.6

		est rates,		ition, and	Wage Rate
		Annual Growt		200	425.00
		90-day			
Guarter	T-bill	MLA REF		Wage	Wage
			tion		
					*******
1983.1	14.044	14.717	6.3	-6.3	0.000
1983.2	13.861	14.589	7.3	-7.3	0.000
1983.3	14.021	15.129	9.2	-9.1	0.081
1983.4	14.902	16.266	26.1	-26.0	0.133
1984.1	16.392	17.434	39.3	-39.2	0.079
1984.2	18.260	19.016	49.2	-49.1	0.091
1984.3	35.301	24.643	63.6	-63.5	0.131
1984.4	42.189	36,005	50.8	-50.7	0.065
1985.1	32.048	26.653	39.8	-39.8	0.031
1985.2	34.074	24:759	27.7	-27.7	0.000
1985.3	25.643	19.831	12.7	-12.7	0.000
1985.4	16.898	13.857	5.7	-5.7	0.000
1985.1	23.894	15.625	_	-	0.000
1986.2	16.255	14.562	1.1	-1.1	0.000
1986.3	13.974	11.000	-1.4	1.4	0.000
1986.4	-		-	-	-

Table 2.7
Annualized Monthly Growth Rates of
Value of Production, Employment,
Consumer & Wholesale Prices

		Compen- sation	ment	CF I	WF∙I	Frodn Value -WFI
1983	17.2	8.4	-2.8	10.9	18.0	-0.8
1	4.1	8.4	-5.5	4.7	10.5	-6.4
2	13.6	3.5	-6.0	6.5	11.6	2.0
3	16.9	3.0	-8.1	6.3	9.7	7.2
4	12.5	5.8	-2.3	6.2	9.7	2.8
5	15.4	6.6	-1.4	6.0	9.5	5.9
6	19.0	5.0	-1.4	7.5	10.9	8.1
7	12.8	5.4	-0.9	8.4	14.3	-1.5
8	18.3	10.9	-1.5	8.7	14.2	4.1
9	25.3	10.3	-0.8	8.7	13.4	
10	24.5	12.0	-1.5	11.7	23.3	1.2
11	19.2	11.1		22.4	34.9	-15.7
12	25.1	18.0	-2.3	32.3	50.4	-25.3
1984	41.8	25.2	-5.5	49.2	66.6	-24.8
1	37.8	17.2	-2.9	37.5	52.7	-14.9
2	39.2	20.7	-2.2	40.0	54.3	-15.1
3	28.3	17.8	-2.9	40.6	54.0	-25.7
4	37.9	18.2	-4.1	40.7	55.9	-18.0
5	44.5	20.3	-6.0	43.3	60.4	-15.9
5	43.4	24.2	-8.3	52.5	76.9	-33.5
7	57.4	35.6	-8.0	58.3	78.3	-20.9
8	44.8	29.7	-6.0	60.5	78.1	-33.3
9	40.4	27.8	-7.5	62.9	86.8	-46.4
10	54.1	27.9	-6.1	58.9	79.9	-25.8
11	42.9	32.5	-5.7	51.6	68.3	-25.4
12	31.3	30.2	-6.5	42.9	52.4	-21.1
1785						
1	18.3	36.4	-3.8	37.5	46.0	-27.7
2	8.7	25.3	-6.4	34.9	41.7	-33.0
3	12.9	27.5	-7.1	34.6	42.6	-29.7
4	17.8	24.0	-11.2	32.9	39.3	-21.5
5	6.4	29.5	-7.8	30.9	33.4	-27.0
6	-2.5	20.3	-7.3	22.2	18.1	-20.6
7	-9.3	9.9	-7.1	16.8	13.1	-22.4
8	-3.4	9.0	-B.7	13.6	9.9	-13.3
9	-1.0	14.2	-8.0	11.5	5.2	-6.2
10	-6.5	13.2	-9.2	12.2	1.0	-7.5
11	-1.3	12.0	-10.1	10.8	-1.1	-0.2

Source:

PIDS Monograph no.8

Phil. Development, third Quarter 1986

Table 2.8

GOVERNMENT REVENUE FROGRAM

		1983	1984	1985
1.	Increase in specific tax on			
	petroleum products based on			
	July 1983 to June 1984 measures	90.6	753.7	
2.	Additional export duty	44.9	433.0	
3.	Economic stabilization tax		282.0	
4.	Additional import duty	1,732.9	2,635.5	3,298.0
5.	Increase in specific tax on			
	alcoholic beverages		276.0	655.0
6.	Increase in specific tax on			
	distilled spirits			111.0
7.	Imposition of ad valorem tax on			
	fermented liquors		100.0	1,034.0
8.	Increase in percentage tax on			
	services			515.0
9.	Increase in documentary stamp tax		100.0	640.0
10.	1 percent tax on foreign exchange		450.0	2,900.0
	Removal of exemptions on interest			
	income		294.0	2,014.0
12.	Shifting of some elements of			
	specific tax to an ad valorem			
	basis on petroleum products		209.0	2,131.0
13.	Increase in ad valorem tax on			
	domestic crude oil		107.0	209.0
14.	Increase in specific tax on			
	imported coal and coke		16.0	16.0
15.	Rationalization of customs duties			
	on corn, coal and coke		31.0	36.0
16.	Imposition of ad valorem tax on			
	cigarettes and increase in specific			
	tax on the same		250.0	881.0
17.	Increase in tax rates on private			
	motor vehicles		45.0	457.0
18.	Increase in airport passenger fees		30.0	150.0
19.	Withdrawal of tax exemptions on			
	government corporations		383.0	1,100.0
20.	Withdrawal of preferential tax			
	treatment of certain business			
	enterprises		200.0	1,590.0
21.	Change in inventory valuation			
	procedures		40.0	120.0
22.	Improvement in sales tax			
	administration		100.0	
	maka l	1 000 4	C 035 0	17.057.0
	Total	1,868.4	6,935.2	17,857.0

Table 3.1 Prices and Monetary Variables

	rrices and nonetary variables									
		Exchange	Interest		Total	Koney				
	Consumer	Rate	on 91 Day	Money	Liquidity	Multiplier				
	Price Index	lPesos per	Treasury	Supply	(83)	(Liquidity/				
Year-Month	(1972=100)	US Dollar)	Bills	(P Hillion)	(P Million)	Money Supply)				
1982.01	353.0	8.2542	13.036	21424	80896	3.77597				
1982.02	355.5	8.2830	13.378	21721	82295	3.78975				
1982.03	357.2	8.3405	13.579	22330	85493	3.82657				
1982.04	359.5	B. 3792	13.591	22614	85783	3.79341				
1982.05	360.5	8.4161	13.980	22990	87189	3.79244				
1982.06	362.6	8.4502	14.014	22471	87596	3.89815				
1982.07	369.1	8.4878	14.188	21313	87371	4.09944				
1982.08	371.6	8.5293	13.765	21134	89309	4.17852				
1982.09	373.3	8.6380	13.922	20963	89636	4.27596				
1982.10	373.9	8.7664	13.935	21114	87449	4.23654				
1992.11	374.5	0.0752	14.004	21259	91704	4.31370				
1982.12	374.7	7.0594	14.027	23525	95298	4.05101				
1983.01	377.0	9.2865	14.043	22246	94731	4.25638				
1983.02	378.9	9.4644	14.047	22012	95476	4.33739				
1983.03	379.8	9.6057	14.043	22165	95775	4.36614				
1983.04	381.7	9.8693	14.043	22412	97418	4.34673				
1983.05	384.4	10.0316	13.989	23537	98710	4.19386				
1983.06	389.0	10.3553	13.561	23040	99789	4.33105				
1983.07	398.3	11,0017	13.704	22690	99250	4.37414				
1983.08	405.5	11.0016	14.061	23061	99548	4.31676				
1983.09	407.2	11.0018	14.299	23503	100723	4.28550				
1983.10	412.3	13.7016	14.577	26432	103607	3.91973				
1963.11	437.6	14.0020	15.038	28306	107851	3.81014				
1983.12	472.4	14.0020	15.382	32518	112962	3.47381				
1984.01	502.5	14.0020	15.500	30673	112153	3.65641				
1984.02	517.7	14.0020	16.400	28997	112497	3.87961				
1984.03	527.2	14.0020	16.500	30176	116259	3.85270				
1984.04	537.2	14.0020	16.600	31727	116248	3.66401				
1984.05	546.2	14.0020	18.400	31470	114928	3.65199				
1994.06	580.5	17.4020	25.400	31200	112036	3.55670				
1984.07	632.5	18.0020	31.600	34950	111303	3.18454				
1984.08	650.2	18.0020	33.500	33242	110349	3.31957				
1984.09	666.1	18.0020	37.800	31528	109246	3.43396				
1984.10	675.4	19.1482	42.000	30722	108165	3.52077				
1984.11	702.7	19.9590	43.000	30796	110911	3.60147				
1984.12	712.5	19.9593	42.200	33633	121215	3.60405				
1985.01	730.0	18.9794	35.200	30935	122298	3.95339				
1995.02	736.7	10.2557	31.000	29493	122907	4.16733				
1985.03	739.7	18.4778	33.300	29632	120247	4.05801				
1985.04	736.2	18.4930	34.000	29859	120496	4.03550				
1985.05	737.4	18,4900	33.400	29098	118733	4.08045				
1985.06	741.2	18.4650	30.600	29067	121251	4.17143				
1985.07	751.4	18.6660	25.000	28393	117297	4.13119				
1985.08	753.3	18.6050	19.800	28462	119826	4.21003				
1985.09	750.7	18.6400	17, 900	28999	123396	4.25518				
1985.10	748.2	18.7550	17.000	28751	122695	4.26750				
1985.11	750.1	18.7580	16.600	29347	122733	4.18213				
1985.12	752.B	19.0320	16.400	35827	121152	3.38158				

Table 3.2 Real Variables (Constant 1972 Pesos)

Quarter	Fersonal Consumption	Bovernment Consumption	Gross Doe. Capital Formation	Fixed Capital Formation	Total Cons- truction	Government Cons- truction	Private Cons- truction	Exports	leports	6 D P	8 n F
1522.1	14265	2199	7237	5751	2956	1274	1682	4352	4815	24255	24157
1962.2	15519	2262	6415	5875	3326	1488	1839	4585	4899	25957	24618
1962.7	15741	2290	6852	6213	2980	1252	1728	4336	4980	22927	12405
1562.4	18010	2394	5763	5848	3259	1345	1914	4477	4872	25520	26270
1953.1	14837	2276	6981	5873	3148	1234	1914	4459	4344	25251	24836
1993.2	15998	2311	7098	6426	3832	1768	2124	5090	4969	25706	257e3
1593.3	16097	2197	5378	5578	2423	533	1890	4819	4913	22960	22576
1953.4	18256	2004	5572	5135	2545	900	1645	4317	4756	25151	25288
1584.1	15021	2742	4653	4732	2968	990	1978	4621	3740	24519	23707
1954.2	16073	2117	4563	4477	2817	924	1893	5049	4323	25314	24822
1594.3	16241	2003	3286	3767	1929	492	1447	5482	4821	20655	20165
1584.4	19698	1893	3349	3565	1732	587	1143	5695	5091	23728	23239
1985.1	15144	2055	3446	3400	1986	679	1308	5088	3224	22725	21994
1985.2	16068	2027	3502	3793	2432	837	1595	4880	3679	23918	23520
1985.3	16240	2052	2719	3280	1842	617	1225	4923	3791	20479	19759
1785.4	18590	2071	2898	2241	648	210	438	4560	3302	23422	23143
1986.1	15343	2131	3261	3192	1794	879	915	5114	3634	22549	22164
1586.2	16174	1975	2177	2362	948	415	533	6516	4432	23196	22679
1585.3	16248	2103	2741	2861	1407	767	640	6127	4220	20650	26093
1585.4	18913	2170	2507	2284	834	283	551	5846	4193	24200	23593

Table 3.3
Balance of Payments
(in million #)

1985 1984 Refore After Before After Exceptional Exceptional Exceptional Exceptional 1982 1983 Ites Financing Financing Financing Financing Merchandise Trade -2,646 -2,482 -679 -679 -482 -482 5,021 5,005 5,391 5,391 4,629 4,629 Exports Imports 7,667 7,487 6,070 5,111 6.070 5,111 Non-Merchandise -1,040 -740 -975 -975 111 111 Inflow 2,983 3,127 3,288 3,288 2,626 2,626 Outflow 4,023 3,867 3,601 3,601 3,177 3,177 Transfers, net 486 472 386 386 379 379 **Current Account** -3,200-2,750 -1,268 -1.2688 1,347 -271 258 -784 2727 Long-term Loans 1,548 Inflow 1,259 670 4181 2,533 2,336 730 Outfloa 985 989 1,001 1,001 1,454 1,454 Direct Invest, net 17 112 -9 -9 6 Short-term Cap, net -263 -618 18 549 -1,526 -1,398 Errors & Omissions/ Gold Monetization/ Reval. Adjustments 277 -254 60 53 771 771 Capital Account 587 1,068 -1548 2091 1,579 -187 Unremittable arrears/ adjustments 698 -2,163 Overall Balance -1,621 -1,455 -200 -1,5402,789 Change in net Int'l Reserves -1,011 446 446 991 991 n.f. Decrease in non--1,152 -646 -646 1,798 1,798 Monetary Arrears n.f. Exceptional Financino -1,255 -3,631 n.a. Unremittable

-698

Arrears/Adj.

Source: Central Bank of the Philippines

n.a.

n.f. = no figure available

n.a. = not applicable

Table 3.4
The Adjustment: The Way and the Truth

	Change	from Previous Year
-	1984	1985
Merchandise Exports		
Value (US \$)	7.7	
Valume (see note 1 below)	-2.6	-4.6
Merchandise Imports		
Value (US \$)	-10.9	-15.7
Volume (see note 1 below)	-31.9	-13.9
Non-oil industrial materials import	5	
Value (US \$)	-12.2	-15.5
Capital goods imports Value (US \$)	-32.3	-31.1
Gross National Product, Real	-6.8	-3.8
Output from		
Agriculture	2.5	3.2
Industry	-10.9	-10.5
Services	-2.3	-1.0
Expenditures on		
Personal consumption	1.5	0.2
General government consumption	-6.1	-0.6
Capital formation	-36.7	-20.7
Reserve Money (End-June level)	68.5	16.8
Net foreign assets	-78.6	5.3
Net domestic assets	74.9	2.5
Central bank credits to		
Central government	56.5	-27.9
Deposit money banks	-47.2	-58.9
Others (see note 2 below)	195.4	15.4
Reserve Money Net of Other Credits (End-June level)	-188.3	-20.4
Interest Rate on 91 day Treasury Bill *Level in December, percentage poin		16.5
Consumer Price Index (December level)	50.8	5.7
Real Exchange Rate (Pesos per foreign currency)	21.8	-7.2

#### TABLE 4.1: WITHIN PERIOD SIMULATION MODEL

#### Behavioral Equations:

(1) 
$$P_t = -215.89 -0.0065 q_{t-6} + 81.13 r_t + 41.45 e_t$$
 (162.27) (0.0038) (19.19)

Estimated by TSLS

$$\overline{R}^2 = 0.96$$
 N = 39, 1982.10 to 1985.12  
DW = 0.94 F = 282.3  
SEE = 32.04 Hean of dependent var = 567.4  
W/in sample RMS percent error: 6.1

(2) 
$$q_t = 22253.40 + 0.25 \left(\frac{b_t}{p_t}\right) - 203.74 \left(\frac{i_t}{p_t}\right)$$
  
(4556.85) (0.15)  $(\frac{b_t}{p_t}) - 203.74 \left(\frac{i_t}{p_t}\right)$ 

Estimated by TSLS corrected for serial correlation by Cochrane Orcutt method, 0 = 0.54

$$\overline{R}^2 = 0.47$$
 N = 39, 1982.10 to 1985.12  
DW = 1.49 F = 12.4  
SEE = 1379.17 Mean of dependent var = 23965.2  
W/in sample RMS percent error: 7.2

w/in sample RMS percent error: /.2

(3) 
$$e_t = -4.27 + 0.015 P_{t-3} + 0.075 i_t + 0.00034 b_t (0.94) (0.001)$$

Estimated by TSLS

(4) 
$$r_t = 4.26 - 0.018 i_{(0.41) (0.012)} t$$

Estimated by OLS corrected for serial correlation by Cochrane-Orcutt method,  $\rho = 0.84$  (0.13)

$$R^2$$
 = 0.68 N = 36, 1983.01 to 1985.12  
DW = 1.20 F = 38.2  
SEE = 0.20 Mean of dependent var = 3.94  
W/in sample RMS percent error: 8.3

(5) 
$$m_t = -1010.73 + 0.221 q_{t-6} - 13.05 e_t$$
 (1168.74) (0.033) (55.27)

Estimated by TSLS corrected for serial correlation by Cochrane-Orcutt method,  $\rho = 0.82$ (0.12)

```
R<sup>2</sup> = 0.84 N = 39, 1982.10 to 1985.12

DW = 1.79 F = 66.1

SEE = 260.22 Mean of dependent var = 4325.6

W/in sample RMS percent error: 10.4
```

### Variable Definitions

```
P consumer price index, 1972 = 100
qt gross domestic product in constant 1972 pesos
rt credit multiplier, liquidity/money supply
et nominal exchange rate, pesos per U.S. dollar
bt monetary base, in million pesos
it interest rate on 91 day Treasury Bills
mt imports in constant 1972 prices
```

Table 4.2 Simulation Results

	Consumer Price Index		Exchange Rate		Multiplier		Imports		Frois Onsectic Product	
year.eonth	baserun	gradualist	baserun (	gradualist	baserun	gradualist	baserun gr	adualist	baserun	gradualist
1563.01	374.5	377.7	9.9462	10,0930	4.0437	4.0078	4325	4323	25729	25335
1983.02	371.1	374.2	9.8748	10.0213	4.0378	4.0019	4256	4254	25270	24874
1983.03	373.0	376.1	9.9300	10.0769	4.0329	3.9969	4197	4195	25065	24669
1983.04	350.6	355.7	10.0127	10.2061	4.0287	3.9927	5009	5007	25165	24730
1983.05	364.2	369.4	10.3460	10.5434	4.0261	3.9892	4966	4963	25279	24845
1753.06	357.3	363.2	10.1705	10.4001	4.0309	3.9862	4936	4933	25262	24731
1993.07	345.9	359.5	9.7319	10.1291	4.0258	3,9469	4673	4581	25222	24756
1983.08	362.9	375.0	10.0864	10.4580	4.0171	3.9447	4546	4453	25093	24246
1583.09	365.6	378.7	10.1558	10.5199	4.0109	3.9429	4481	4387	25119	24324
1983,10	401.1	420.5	11.0185	11.6110	4.0042	3.9046	4477	4373	25464	24389
1983.11	439.2	456.4	11.9488	12.4993	3.9945	3.9033	4478	4375	25494	24592
1993.12	501.2	519.6	13.4819	14.0070	3.9870	3.9022	4444	4320	25779	25015
1984.01	496.3	519.4	13.3520	13.8334	3.9839	3.93B0	4428	4209	25469	24964
1961.02	497.1	516.3	13.3953	13.7835	3.9666	3, 9373	4392	4200	25034	24707
1984.03	552.3	571.1	14.7355	15.1176	3.9641	3,9366	4375	4194	24932	24554
1984.04	569.3	589.8	15.2051	15.4851	3.9617	3.9728	4440	4199	25090	25059
1984.05	568.8	592.6	15.2635	15.3661	3.9282	3.9723	4442	4249	24814	25050
1794.06	612.3	613.5	16.6094	14.1803	3.7993	3.9719	4484	4321	23815	24914
1984.07	594.0	672.1	18.5142	17.5557	3.6851	3.9899	4388	4294	23445	25242
1984.09	665.2	645.7	18.0605	16.875	3.6499	3,9896	4296	4240	23045	25130
1584.09	674.7	640.3	19.4303	16.7376	3.5707	3.9894	4267	4228	22352	24918
1984, 10	712.7	858.5	19.5208	17.1713	3.4934	4.0259	4284	4310	21823	24954
1584.11	705.6	643.6	19.3449	16.8086	3.4748	4.0257	4226	4312	21726	25027
1964.12	757.2	8.184	20.4039	17.7092	3.4894	4.0256	3991	4269	72159	25240
1985.01	732.8	652.2	19.5057	17.0463	3.6178	4.0254	3920	4349	22528	25010
1785.02	703.7	623.2	18.5895	16.3289	3.6948	4.0253	3843	4333	22787	24934
1985.03	745.4	649.8	19.5680	16.9374	3.6525	4.0252	3676	4278	22552	24943
1985.04	739.4	634.8	19.3406	16.5811	3.6396	4.0252	3562	4290	72514	24936
1995.05	709.4	602.5	18.6054	15.7424	3.6505	4.0619	3550	4317	22491	25265
1985.06	726.9	616.9	19.9966	16.1224	3.7019	4.061B	3642	4358	22758	25133
1985.07	701.6	599.6	18.2409	15.6695	3.8047	4.0617	3731	4313	23266	25117
1985.08	674.8	581.4	17.4495	15.2194	3.9001	4.0617	3799	4302	23869	25217
1965.09	691.6	599.5	17.7489	15.6155	3.9350	4.0617	3742	4277	24996	25212
1985.10	671.4	583.8	17.2238	15.2763	3.9515	4.0616	3741	4301	24215	25249
1985,11	663.1	576.2	17.0064	15.0651	3.9588	4.0983	3739	4364	24362	25629
1985.12	763.9	679.7	19.4727	17.5498	3.9624	4.0983	3765	4315	24852	25957

Table 4.3

ADDITIONAL FINANCING CALCULATIONS
(In Million \$)

	1983	1984	1985
Actual:			
Merchandise exports Merchandise imports Merchandise trade balance	5,005 7,487 -2,482	6,070	•
Current Account Balance	-2,,750	-1,268	8
Memo: Target Current Account Balance	-2,800	-1,500	-1,300
Alternative:			
Merchandise imports Merchandise trade balance	6,533 -1,528	6,413 -1,082	•
Current Account Balance	-1,796	-1,671	-1,491
Additional Financing:			
Against actual trade deficit	-954	403	1,499
Against target current account balance	n.a.	171	191

Table 5.1

DISTRIBUTION OF PRESCHOOLERS BY WEIGHT-FOR-HEIGHT STATUS (WH)
BY REGION, 1984 AND 1985

	1984		1985		1	984	1985	
Region	No.	*	No.	•	No.	•	No.	*
Ilocos	54	17.2	63	20.6	260	82.8	243	79.4
Cagayan Valley	41	12.1	31	8.6	298	87.9	330	91.4
C. Luzon	67	16.8	82	24.2	332	83.2	257	75.8
S. Tagalog	71	19.6	52	15.3	292	80.4	288	84.7
Bicol	50	18.7	21	10.6	218	81.3	177	89.4
W. Visayas	38	13.8	44	20.1	237	86.2	175	79.9
C. Visayas	18	6.1	14	5.6	277	93.9	23	94.4
E. Visayas	29	11.5	26	15.5	223	88.5	142	84.5
W. Mindanao	8	5.3	12	9.2	144	94.7	119	90.8
N. Mindanao	16	10.7	14	10.3	134	89.3	122	89.7
S. Mindanao	14	12.2	18	14.8	101	87.8	104	85.2
C. Mindanao	16	9.3	20	9.8	156	90.7	185	90.2
NCR (Metro Manila)	19	8.8	43	14.4	198	91.2	256	85.6
NATIONAL	441	13.3	440	14.3	2,870	86.7	2,634	85.7

Source: National Nutrition Council Survey, 1984 and 1985.

CHART 1
GNP AND GDP GROWTH RATES

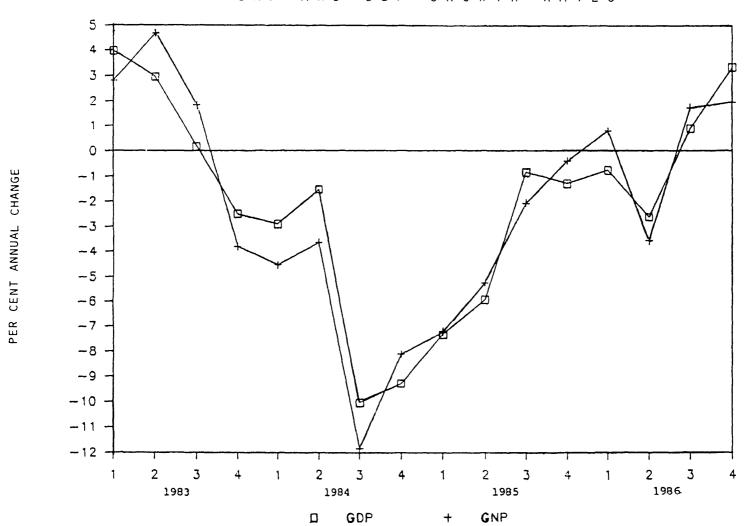


CHART 2
TOTAL INVESTMENT

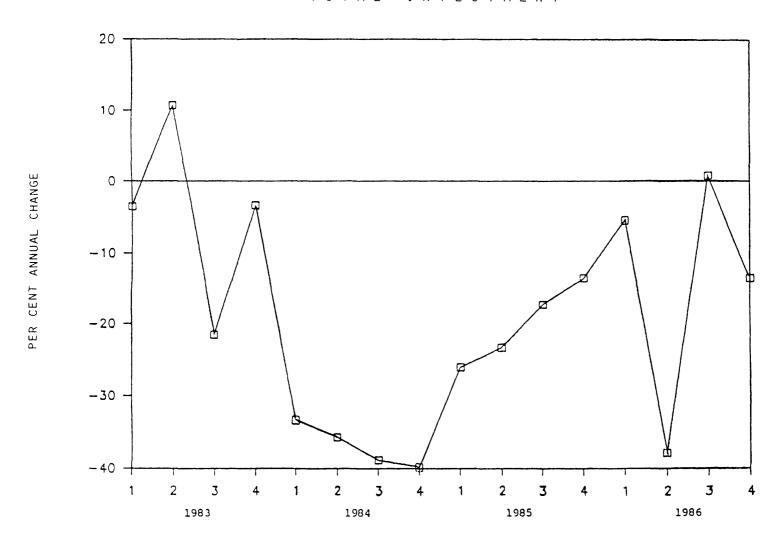
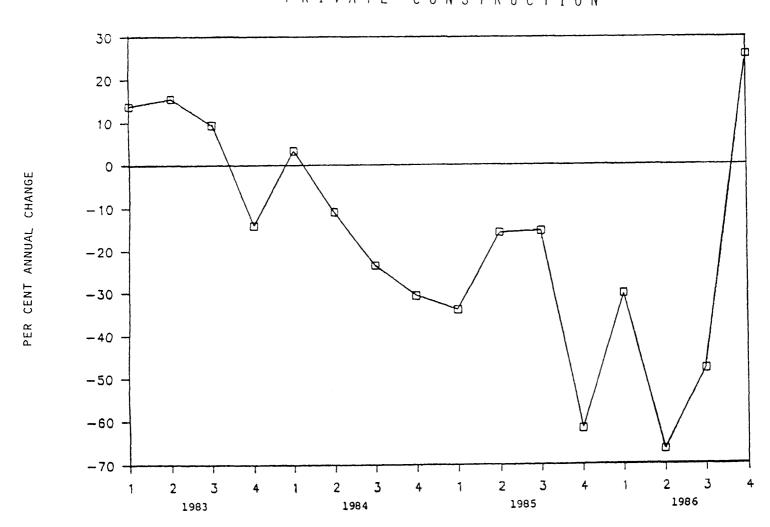
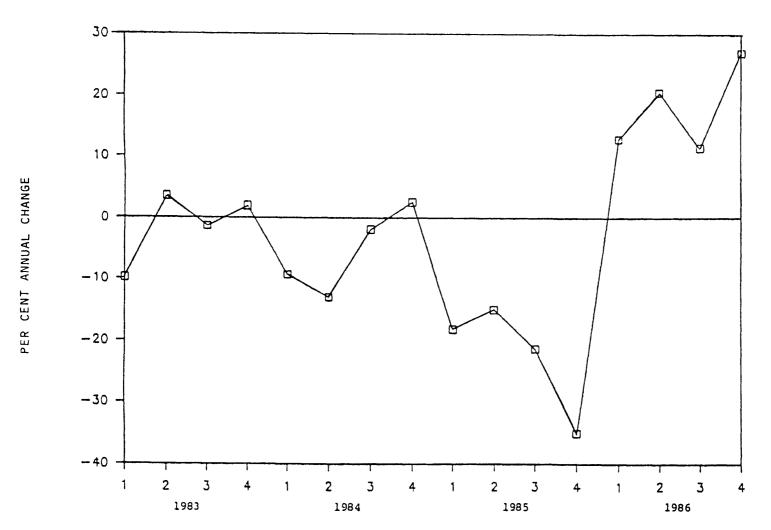


CHART 3

PRIVATE CONSTRUCTION



# IMPORTS



EXPORTS

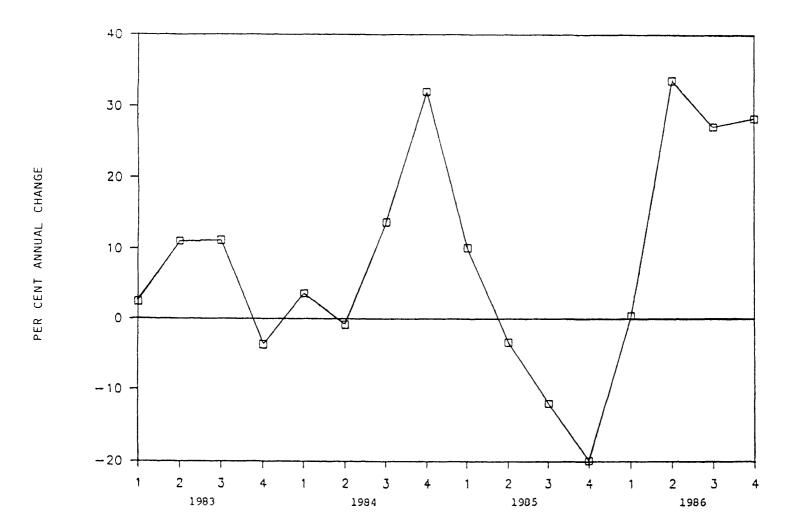
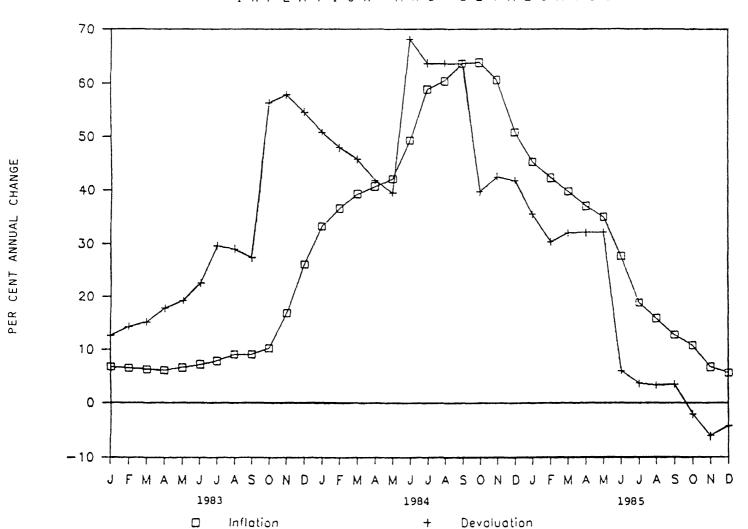
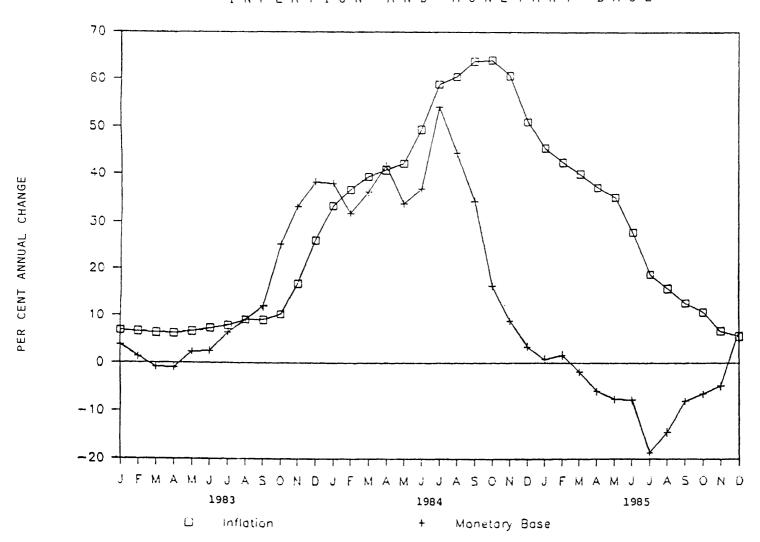
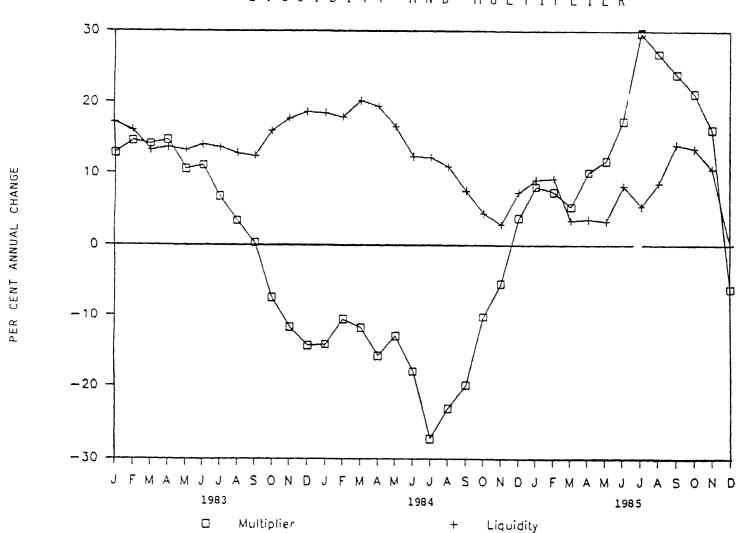


CHART 6
INFLATION AND DEVALUATION







## REAL LIQUIDITY

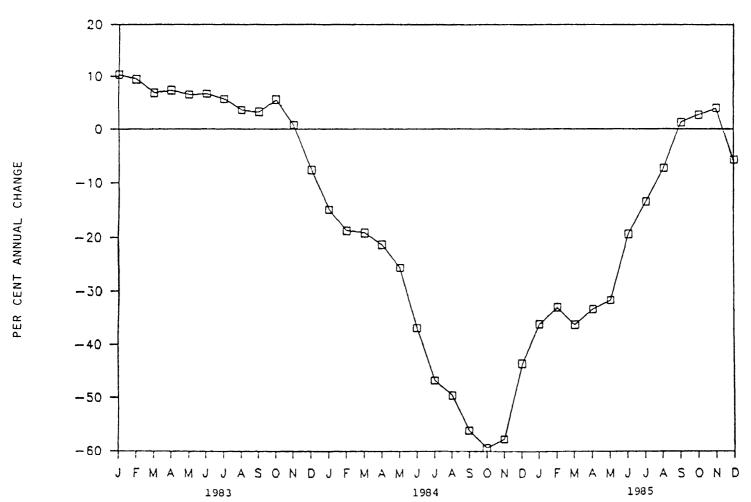


chart 10

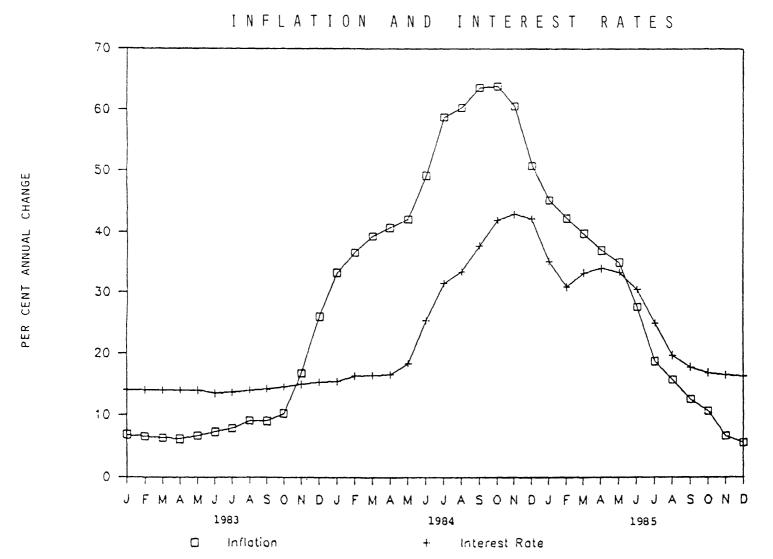


CHART 11 INTEREST RATES

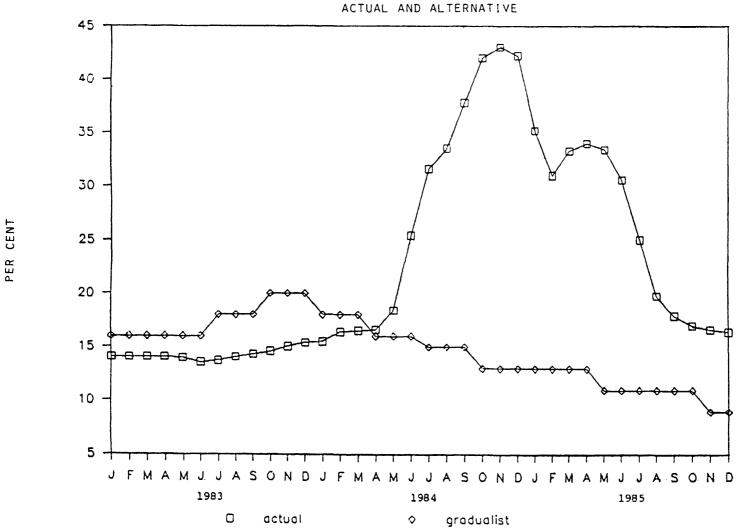


CHART 12

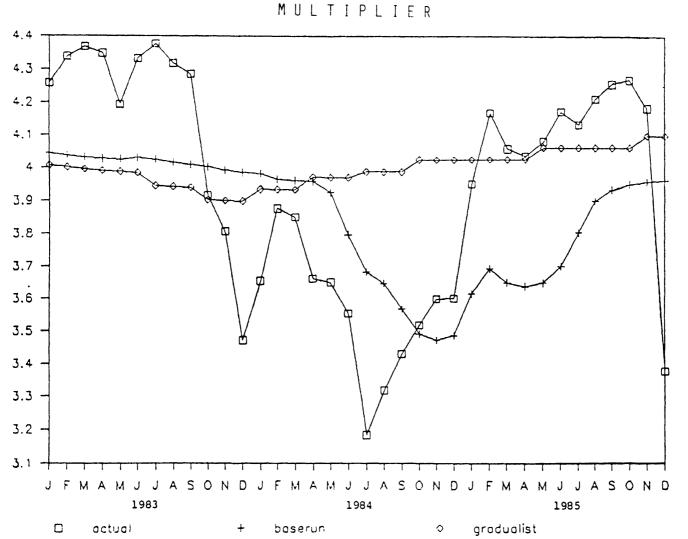
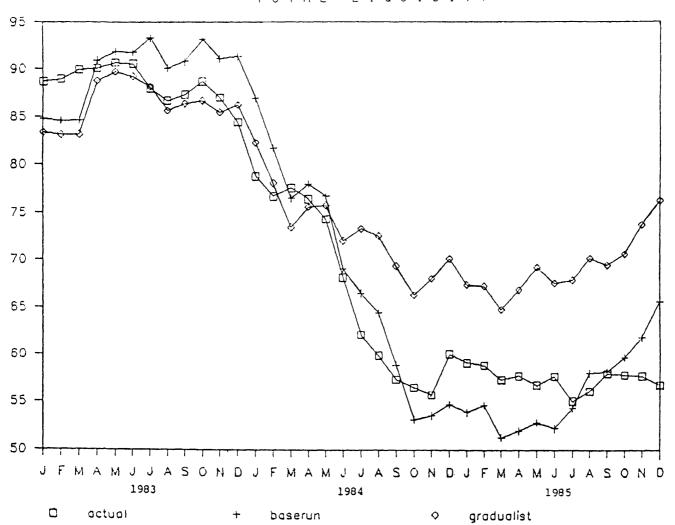


CHART 13



CONSUMER PRICE INDEX

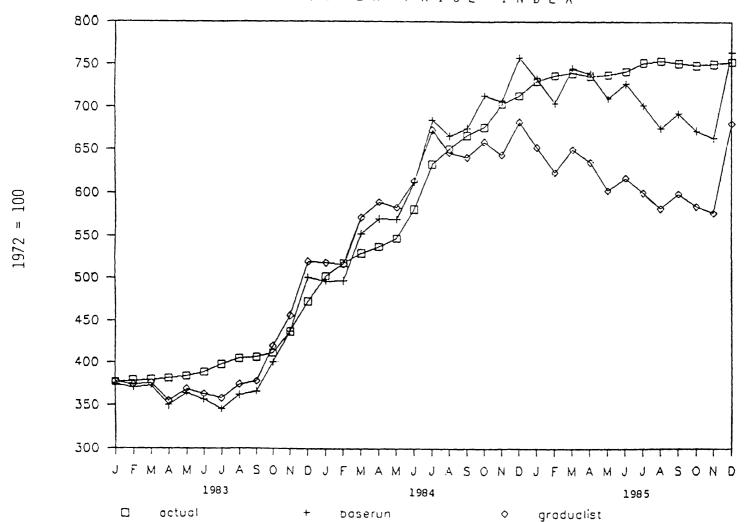


CHART 15 EXCHANGE RATE

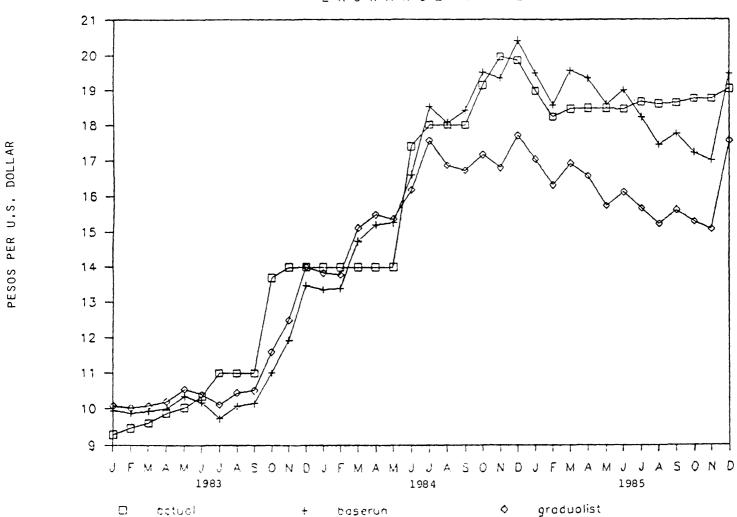


CHART 16

# GROSS DOMESTIC PRODUCT

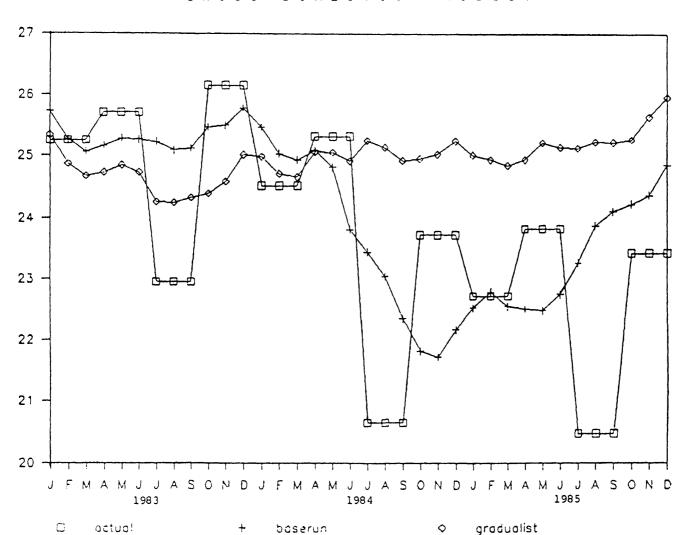
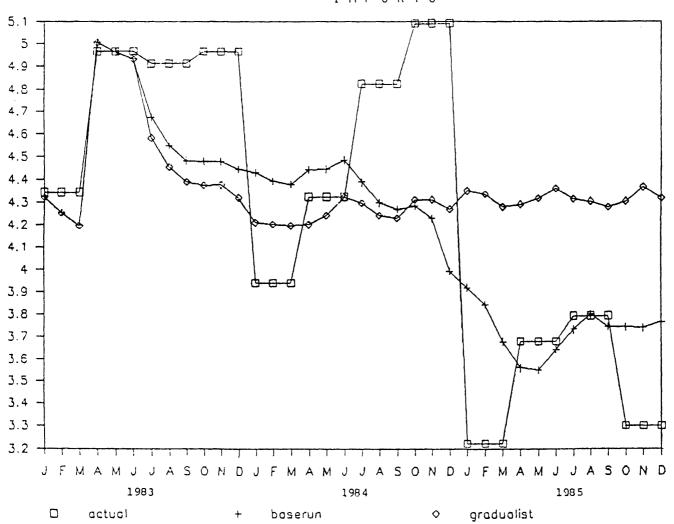


CHART 17



92.

### APPENDIX

### Simulations of an alternative stabilization programme

We present here some calculations using a small model of the economy to illustrate one alternative gradualist stabilization programme. As large macro models for the Philippine economy have been unable to reproduce developments in the economy after 1983, we decided to estimate a macroeconometric model based only on data from 1982 to 1985, shown in Tables 3.1 and 3.2.

The model specification (and the specification search) was heavily influenced by the discussion in Section II about the actual adjustment experience from 1983-85. The model is estimated on monthly data from 1982.10 to 1985.12 (quarterly for GDP).

The estimated model, mostly estimated by two stage least squares, is presented in Table 4.1. For each equation in Table 4.1 we also present the within sample root mean square error of the equation obtained from simulating the whole model dynamically within the sample period. Serial correlation was a problem in the data set.

The first equation determines the price level. Price level declines as output six months ago increases. It increases, in monetarist fashion, when the money multiplier, increases (a measure of general credit availability). Devaluation exerts significant upward pressure on the price level. The nature of the latter effect has been discussed extensively in Taylor (1983) and Bruno (1979).

The second equation gives short-run output, measured by quarterly gross domestic product, as a function of the real monetary base and the real interest rate. In this model, the monetary base and the interest rate are treated as exogenous variables, independent of each other. The justification is

the recent experience in which the Central Bank has been able to lead in interest rate determination through sales of its interest-bearing bills. Furthermore, as shown in the Section II, the evolution of the money supply has become tied to the programmme ceilings.

The third equation expresses the exchange rate as a positive function of three variables, all highly significant statistically: the price level three months previously, the interest rate, and the monetary base. The first and third variables have standard signs. Attempts to estimate the exchange rate as a negative function of the interest rate, to embody the Central Bank's operation of raising interest rates to defend the exchange rate, failed.

The fourth equation embodies all of the monetary sector for the model and says that the money multiplier is a negative function of the rate of interest. The justification is again that during the adjustment period, the interest rate has been used to control total liquidity. Thus, total liquidity is implicitly determined from this equation along with the exogenous variable monetary base. Because of this equation, equation two is really a statement that output in the short run depends on real liquidity available in the economy.

The fifth equation is intended as an import demand equation with standard signs. An increase in the exchange rate reduces real imports. Output six months previous is the activity variable for imports, current output and shorter lags having exhibited the negative sign. This reflects the intense speculation in and the high financing cost of imports during the period.

We do not need to explain the many other alternative specifications that were tried. In our view, the model embodies the important parameters in the economy during the 1983-85 adjustment and fits the limited data available adaquately.

The operation of the main part of the model begins with which determines current output equation 2 availability of current financing. Current prices are then through equation 1 from demand elements determined liquidity to through the ultimately related multiplier, cost of imported inputs through the rate, and supply of output six months earlier. Ιt implicit in the interdependence of the equations of the model that output depends on imports which in turn depend on the availability of financing.

A distinctly negative relationship between output and prices is embodied in the model, in line with the short-run stabilization experience.

The gradualist counterfactual experiment reported here assumes that serious stabilization policy began in January 1983, the month when the new IMF programme actually started. The policy instrument used here is the interest rate which is pegged two percentage points higher than actual rates in the beginning of 1983 and is allowed to rise to 20 per cent nominal in the last three months of 1983. Subsequently, it is brought down gradually to 9 per cent nominal by December 1985. Chart 11 provides a comparison of actual nominal and the proposed interest rates over the simulation period.

Based on the model, the immediate effect of the policy would be on the money multiplier and implicitly on total liquidity. Chart 12 shows that under the proposed policy the multiplier would be slightly below the base run values for the model until April 1984. Beyond this month, the proposed multiplier would stay relatively stable at around a value of 4.

In this simulation, the actual values of the money supply, which were, in the main, consistent with the IMF programme targets during the period, have been used. By contrast, the values for total liquidity would be inconsistent with the IMF programme targets. Chart 13

provides a comparison of the actual and the proposed values of total liquidity implicit in the gradualist simulation.

The simulation results for the key variables are given in Table 4.2.

For inflation, the gradualist values are slightly higher than the base run values for 1983. Chart 14 depicts the actual, base run, and 'gradualist' levels of the consumer price index during the simulation period. The December 1983 base-run inflation rate is 33.7 per cent while the gradualist value is 39 per cent. This is due to the higher interest rates in the alternative approach for 1983. In the model, higher interest rates are reflected in higher import financing costs, and translated into higher prices.

The proposed alternative path shows a slightly higher than base run inflation rate until June 1984, after which the base run price levels are significantly higher than the proposed path. (Both the base run and alternative paths show a deflationary price trend from January 1985 which does not appear in the actual data.)

From January 1983 through May 1984, the exchange rate depreciates faster in the gradualist compared to the base run path (Chart 15). Beyond this point, the exchange rate shows values lower than base run. December 1984 base run exchange rate is P19.5 (compared to P19.9 actual) which is higher than P17..7 in the alternative approach. This P2 difference is maintained until the end of the simulation period in December 1985.

The more gradual stabilization policy has its most beneficial effect on the real variables. Gross domestic product for 1983, under early but more gradual adjustment, is lower by 2.6 per cent than the corresponding base-run level. GDP grows by 1.8 per cent in 1984 as opposed to a decline of 6.6 per cent in the base run and 6.8 per cent in the actual. In 1985 there is another positive growth of 1.8

per cent as opposed to a fall of 1.2 per cent in the base run and 3.8 per cent in the actual. In Chart 16 the level of quarterly real gross domestic product under more gradual adjustment is practically constant through the period while the actual and the base run values exhibit large falls.

The same flat pattern is shown for imports, except for 1983 (Chart 17), when both the base run and the alternative path show an earlier fall in imports than the actual. The alternative path is, however, lower than the base run, by 2.8 per cent in December 1983, as a reflection of the earlier start of the adjustment for the gradual strategy. Beyond November 1984, alternative path imports are higher than both base-run and actual values.

Imports for the whole year of 1983 are 1.1 per cent lower under the alternative path compared to the base run path. For 1984, imports are a full 7 per cent higher for the alternative path; for 1985, imports are 15.8 per cent higher compared to the corresponding base-run values.

Let us now compute the additional financing that might have been necessary for the alternative path. Let us assume exports to be what they actually were during the period 1983-85. This is a conservative assumption since exports themselves were constrained by financing cost during period. Under this assumption, using the inflation and results from the alternative exchange rate path. merchandise trade deficits in 1983, 1984 and 1985 would have been \$1528, \$1082, and \$1985 billion respectively. Compared to the actual merchandise trade deficit, these alternative import values would have meant financing requirements of \$954 million less for 1983, \$403 million more in 1984 and \$1499 million more in 1985 (Table 4.3).

Thus an additional net financing requirement of \$948 million over three years would have been required by the alternative path for merchandise trade alone. Given that by end 1985, \$1.74 billion of the trade facility had remained

unused, there could have been sufficient resources for the alternative strategy. In fact, the economy was so depressed that by 30 September 1986 \$1.66 billion of the trade facility remained as deposits with the Central Bank. Between 1984 and 1985 alone, the additional financing required would have been \$1802 million. Even assuming that the reduced financing requirement for 1983 had not materialized, this would only have meant an additional financing requirement of \$100 million for the years 1984 and 1985.

The suggested approach is still monetarist, since it relies on credit control. However, the model that is used embodies the cost push elements that had a strong impact in the period of the 1983-85 adjustment. These results suggest that an abrupt monetary correction should be avoided in such an economy. The suggested approach would only have been feasible, however, in conjunction with the other elements suggested in the paper.