

## Exchange Rate Movements in the Philippines

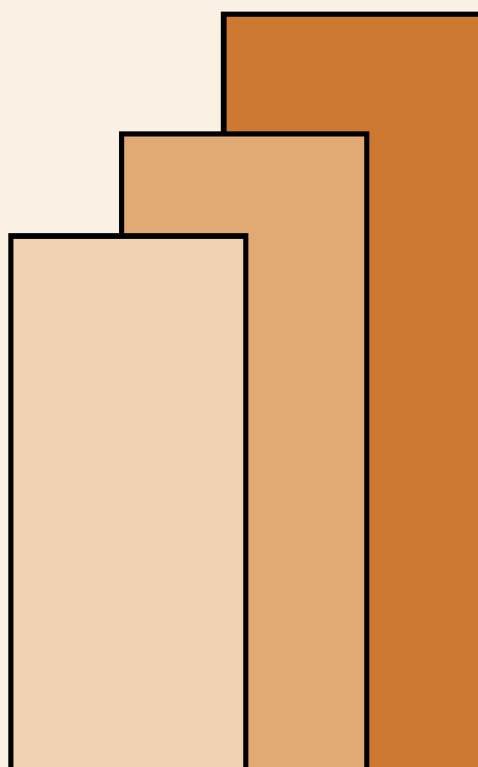
*Caesar B. Cororaton*

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# **Exchange Rate Movements in the Philippines**

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# Exchange Rate Movements in the Philippines<sup>1</sup>

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This paper discusses the movement of the Philippine foreign exchange rate. The discussion will focus on: (1) the movement of nominal and real trade-weighted exchange rate from 1980 to 1995; (2) the different exchange rate regimes in the Philippines since 1960s and the factors that triggered such regime shifts; (3) the critical role attached to the exchange rate in macroeconomic stabilization programs of the government; (4) the impact of real exchange rate changes on output, prices, and competitiveness.

## Exchange Rate Movements

### Index of Foreign Exchange Rate

An index of trade-weighted Philippine foreign exchange rate (FOREX) was constructed. The index of nominal FOREX, which is based on 1980 levels, was derived using the yearly averages of the Philippine peso relative to the currencies of the country's 7 major trading partners, and the total trade value (i.e., exports and imports with these countries) as weights. The 7 major trading partners are: United States, Japan, Germany, Netherlands, United Kingdom, Singapore, and Saudi Arabia.

The index of real FOREX, on the other hand, was derived using the nominal index, but adjusted for two indicators of inflation differentials: the consumer price index (CPI) and the gross domestic product (GDP) deflator. The indices are shown in Figure 1.

From the annual movements of the FOREX, one can observe that the Philippine peso has depreciated in nominal terms from 100 in 1980 to 508.7 in 1995, or an annual average nominal depreciation of 27.2 percent in the last 15 years. In the first half of the 1990s, nominal FOREX depreciated by 6.1 percent per year. In 1992, it appreciated by 3.9 percent.

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<sup>1</sup>A paper presented during the Specialists Meeting of the Pacific Economic Outlook-Pacific Economic Cooperation Council on "Exchange Rate Fluctuations and Macroeconomic Management", Osaka, Japan, September 28-28, 1996.

<sup>2</sup>Research Fellow, Philippine Institute for Development Studies. Research assistance was provided by Consolacion Chua.

In real terms, however, the FOREX movement is different. This is clearly shown in Figure 2, where the deviations from 100 of the CPI-adjusted real FOREX are plotted. In the early 1980s, there was a real appreciation of the currency. A sharp real depreciation was seen in 1983, at the outbreak of the mid-1980 crisis. Real appreciation was seen again in 1985. Because of very low domestic inflation in 1986 and a very stable nominal exchange rate, the year saw another sharp real depreciation. Since then, the FOREX appreciated in real terms, notably in the following years: 1989, 1992, 1994, and 1995. As a result of the successive real appreciation in the last two years, the real FOREX is now below the 1980 level.

Figure 3 compares the CPI-adjusted real exchange rate with the GDP deflator adjusted rate. The two indices are not very far from one another.

### Movements and Effects of FOREX Adjustments

The discussion in this section uses the movement of the Philippine peso to the US dollar exchange rate (also called FOREX), instead of the above computed trade-weighted index.

Significant nominal FOREX devaluation occurred in the following years: 1962, 1970, 1983, and 1984, while moderate FOREX adjustments took place in 1975, 1982, 1985, and 1990 (Table 1). The impacts on output and prices were different during these years. Inflation increased in 1963 and 1964, but within the single-digit level. Output of both agricultural and non-agricultural sectors increased dramatically in 1963. Before the major devaluation in 1970, the growth in agriculture fluctuated between 3 and 7 percent during the period after the devaluation, although there was a slight decline in 1964 due to the negative effects of natural calamities. The non-agricultural sector registered a growth of about 5 percent during the period.

The 1962 major adjustment in the FOREX addressed two main concerns: (1) the balance of payments problem during the period; and (2) the government's development strategy to liberalize the economy and promote exports. The FOREX adjustment was a major part of the liberalization program, along with the reduction in trade protection through decreases in tariff rates.<sup>3</sup> The reduction in trade protection partly offset the inflationary pressure of the devaluation in 1962. This was why the increase in prices was generally moderate during the period.

The impact of the FOREX adjustment on exports was generally favorable. Exports increased by 30 percent in 1963 (partly also because of favorable world commodity market), while

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<sup>3</sup>Unfortunately, many of the policies instituted earlier to liberalize the economy were reversed in the mid and late 1960s.

imports dropped.

The experience of the 1970 FOREX devaluation, however, was generally difficult because of 2 major factors: (i) the foreign debt problem caused by the construction spending of the Marcos administration and the balance of payments crisis during the period; (ii) the FOREX adjustment was not accompanied by policies that could have softened inflationary pressures, e.g., trade protection barriers through quotas and tariffs were reimposed between 1965 and 1969. As such, the devaluation of the FOREX during the year was not part of a development strategy package similar to the previous 1962 devaluation, but was just a policy reaction to the balance of payments problems during that time and the IMF and World Bank loan conditionalities. Therefore, the major adverse effect was felt on inflation, which for the first time skyrocketed to more than 20 percent. However, growth was not adversely affected. GDP growth was maintained at slightly less than 5 percent. Agricultural growth fell in 1970, but this was again mainly to the negative effects of natural calamities. Exports grew but imports dropped.

Rising prices during the period caused major social unrest. This contributed to the increasing radicalization of the student populace that triggered the declaration of the martial law in 1972. "It also contributed to the strong belief which exists today that devaluation means economic upheaval and instability" Lim (1992).

In 1983, the FOREX was devalued by 30 percent. In 1984, it was again devalued by another 50 percent. In 1985, a moderate adjustment of 11 percent took place. It was during this period when the economy collapsed, and the experience of the series of FOREX adjustments was felt most painful. The economy dropped in real terms by 14.4 percent in 1984 and 1985, while inflation reached as high as 50 percent in 1984. Of course, the collapse of the economy was due to many factors. The two major ones are: (1) the international financial crisis in 1982 which was triggered by the Mexican and Brazilian foreign loan default, which virtually stopped the flow of medium and loan term loans to the Philippines and therefore left a tremendous pressure on the FOREX to devalue; and (2) the domestic political instability which started with the Aquino assassination in 1983 that led to massive capital flight.

The major FOREX realignment during these turbulent years was again a result of a policy reaction to both international and domestic problems. In fact, it was part of a stabilization program, along with the austerity and belt-tightening measures (which included mopping up operation of "excess" liquidity and government deficit reduction) of the IMF program which led to, among others, very high interest rate. Interest rate during the period ranged between 40 and 60 percent. Thus, the major FOREX adjustment during the period was not part and parcel of a development strategy similar to the 1962 devaluation. Devaluation was inevitable given the magnitude of the economic problems. The unusual experience of the mid-1980s crisis heightened further the belief that

devaluation causes major economic crisis.

With the advent of huge debt burden, the exchange rate movements in the Philippines has now been crucially linked with foreign debt service of the government and therefore with monetary and fiscal policies. As part of the foreign debt restructuring program, the government had to assume most of the foreign debt of the private companies which failed. As a result, the total debt service payment takes more than one-third of the government's annual budget. Thus, a FOREX devaluation can eat up a significant portion of the budget, leaving all essential government allocations for capital investment and for the social sector at the margin. Given these concerns, the debate on FOREX adjustments in the second half of the 1980s and in the 1990s has always been focused on the negative affects of devaluation. It has become a very unpopular policy tool. Lim (1992) points out that "the delinking of the exchange rate to trade and industrial policy and its linking to financial flows has been detrimental for it has brought about a dichotomy between exchange rate policies and trade and industrial policies (such as investment incentives and schemes and import liberalization)."

In an attempt to restructure the economy, the government implemented a number of economic reforms starting the second half of the 1980s. One such reform is the foreign exchange liberalization. In 1992, the authorities freed a substantial number of exchange controls in the foreign exchange market. Exchange controls such as (i) the surrender requirement for export proceeds; (ii) the prior Central Bank (CB) approval for export transactions and any payment on any FOREX transactions and capital repatriation/dividend/interest remittance privilege, have been removed. Furthermore, Filipino nationals working overseas are no longer required to remit specified minimum shares of their earnings. However, some restrictions still remain with respect to foreign borrowing by private and public sectors, especially those guaranteed by the National Government or government financial institutions.

With the foreign exchange liberalization, the FOREX in principle is supposed to be determined freely in the market through the Philippine Dealing System of the Bankers Association of the Philippines which links participants through an electronic screen-based network for sharing information and undertaking exchange transactions. However, experience would show that the foreign exchange transactions that go through the market is just a small part of the total daily volume of foreign exchange transactions. This, together with the fact that the CB is the major foreign exchange player in the market, results in an unrealistic determination of the official foreign exchange rate. In fact, the dominant presence of the CB in the market effectively makes the present FOREX regime a "dirty float".

## Macroeconomic Stabilization and Recent Exchange Rate Changes

### External Account Balances

Table 2a presents the BOP performance from 1980 to the first semester of 1996, while Table 2b shows the ratios of the major items to GNP. The balance of trade (BOT) deficit has deteriorated sharply in the 1990s; from -6.1 percent of GNP in 1989 to -14.1 percent in the first half of 1996. Fortunately, the deficit in BOT has consistently been offset by the huge surpluses generated in the non-merchandise trade (NMT). In 1989, NMT surplus was 0.7 percent of GNP. In the first semester of 1996, it increased dramatically to 9.5 percent. All this because of huge inflows coming from the remittances of personal income and the peso conversion of foreign currency deposits (FCD).

Remittances of personal income have been increasing rapidly since 1989; from a billion US dollars in that year (2.4 percent of GNP) to almost US\$5 billion in 1995 (6.4 percent of GNP). In the first six months of 1996, remittances have already reached US\$3.5 billion (8.4 percent of GNP). Given the present trend of total remittances of personal income, it appears that it can reach US\$6 billion for the current year.

On the other hand, the peso conversion of foreign currency deposits has also been moving along a similar uptrend; growing dramatically over the same period from US\$700 million in 1989 (1.6 percent of GNP) to US\$4.7 billion in 1995 (6.2 percent of GNP). In the first six months of 1996, it has already recorded a level of US\$2.8 billion (6.8 percent of GNP). However, the sources of this inflow are unclear. Part of it could be due to earnings of overseas contract workers (OCWs) which were not declared but were deposited and withdrawn from FCD accounts. Part of it could also be due to capital flight that is returning back to the country or cash personally brought in by small foreign investors and temporarily parked in FCD accounts. Nonetheless, from the impressive steady growth in the last six years, it appears that it will continue to be a major source of foreign exchange in the next few years.

In 1989, the sum of remittances of personal income and peso conversion of foreign currency deposits was only 4.0 percent of GNP. In first six months of the 1996, it increased to 15.2 percent. Moreover, interest expense on foreign debt to GNP ratio appears to be on a declining trend. Although the ratio inched up a bit in the first semester of 1996, the ratio showed a declining trend from 5.1 percent in 1990 to 3.1 percent in 1995.

Thus, the current account (CA) deficit remained manageable all these years. In the period from 1986 to the first semester of 1996, the CA deficit to GNP ratio fluctuated within a range between -1.0 percent (in 1988) to -5.8 percent (1990). The CA deficit ratio at present is -4.2 percent.



Medium and long term loans (MLT) reached a peak of US\$2 billion in 1993. This is mainly due to the bond flotations of the Philippine National Bank (PNB) and the Development Bank of the Philippines (DBP).

While short-term loans do not have a noticeable trend, foreign investment is showing an impressive uptrend. Foreign Investment has two major components: foreign direct and portfolio investments. Table 3 shows that both types of investment registered an impressive increase in the last few years. The inflow of foreign direct investment (FDI) (which is of long-term type) rose sharply from US\$500 million in 1990 to US\$1.5 billion in 1995. In the first six months of 1996, FDI has reached a level of almost US\$900 million. The inflows portfolio investment too rose dramatically since 1990; from US\$156 million in that year to US\$5.3 billion in 1995. In the first six months of 1996, portfolio investment has reached a level of US\$4.5 billion. However, unlike FDI, portfolio investment is of short-term and volatile type. This is seen in the volume of portfolio investment outflow. While the inflows are big, the corresponding outflows are also huge: meaning that some of this investment (placed usually in the stock market) is here for less than a year.

In the revised BOP accounts of the Bangko Sentral ng Pilipinas (BSP), changes in commercial banks' net foreign assets are included as one new item under the capital account. In 1995, this contributed some US\$1.3 billion to the capital account. In the first six months of 1996, its level jumped dramatically to US\$4 billion.

However, one surprising and puzzling trend is seen in the errors and omissions. Usually, errors and omissions are considered as a "catch-all" indicator of capital flight wherein a negative value would indicate capital moving out of the country and a positive value, capital reflows. Last year, errors and omissions registered a huge negative value of -US\$2.4 billion. In the first six of 1996, this increased further to -US\$2.6 billion. These negative values are difficult to explain against the background of the recent surge in foreign exchange inflows.

As a result, the overall performance of the capital account is favorable, especially in the 1990s. It has generated surpluses from 3.6 percent of GNP in 1989 to 10.1 percent in the first semester of 1996.

The recent surge in capital inflows as indicated by the surpluses in the capital account is not unique to the Philippines. In fact, almost all developing countries (especially Asian countries) have experienced the same pattern of inflows (see Figure 4 and Table 4). The literature has provided 3 basic reasons behind the surge in inflows (IMF, 1995): (i) "the success of some Western Hemisphere countries (including the Philippines) in restructuring their commercial bank debt, combined with the implementation of sound macroeconomic policies and wide-ranging structural

reforms, including financial sector reforms, facilitated their re-entry into the international capital market"; (ii) "the cyclical position of industrial country economies stimulated the flow of capital into the emerging markets (specifically, the sluggishness in economic activity, the weak demand for funds, and the decline in interest rates in the industrial countries in the early 1990s contributed to investors having a greater interest in developing countries)"; and finally, (iii) "the ongoing international diversification of rapidly expanding institutional portfolios (mutual funds, insurance companies, pension funds, proprietary trading of banks and securities houses) has contributed greatly to the flows into the emerging markets. Institutional portfolios are absorbing a growing share of world saving, and hence investment decisions are becoming increasingly concentrated in the hands of professional fund managers who generally are more willing to diversify their investments to the international arena."

Thus, despite the deteriorating BOT deficit and the current account deficit, the surpluses in the capital account resulted in comfortable surplus BOP position. In the first six months of 1996, BOP surplus to GNP ratio was 5.8 percent. The surpluses in the overall external account of the economy led to the accumulation of foreign exchange reserves. At present the gross international reserves (GIR) of the BSP stand at US\$9.96 billion (end of June 1996). This is equivalent to more than 7 months of imports.<sup>4</sup>

#### Policy Responses of the Government

Table 5 shows how the monetary authorities, through the Bangko Sentral ng Pilipinas (BSP) responded to the surge in the capital inflows. One can observe from the numbers that the BSP has been intervening quite strongly in the foreign exchange market. This is indicated by the growth of its gross international reserves. The BSP has accumulated almost US\$8 billion of international since 1990 (i.e., from US\$2 billion at the end of 1990 to US\$9.96 billion at the end of June 1996). In the first six months alone, BSP bought net reserves amounting to US\$2.3 billion. Indeed, the BSP has been a major actor in the foreign exchange market.

The huge accumulation of reserves from the market resulted in substantial increases in its net foreign assets (NFA). In 1994, its NFA increased by 62 percent. Although it slowed down in 1995, in the first six months of 1996 it jumped up again by another 55 percent.

The BSP has been sterilizing a major portion of the inflows. Since 1991, its total net domestic assets (NDA) has been on the downtrend. In 1991, NDA declined by -21 percent. It declined further in 1992 by -46 percent. Although it increased slightly in 1993, it continued its descend in 1994, declining by another -21 percent. As a result, the growth of reserve money (RM)

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<sup>4</sup>Calculated using the imports of the first six months of 1996 and end-of-June GIR.

has been contained. In 1994, RM only grew by 6 percent. It, however, grew faster in 1995 by 17 percent.

Table 6 presents the regression results showing the degree of substitution between NFA and NDA. The coefficient of NDA is an estimate of what is commonly called the offset coefficient. The estimated coefficient is -0.889, which can be interpreted to mean that NDA decreases by P0.89 for every P1 increase in NFA.

Thus the data would show the indeed the BSP has been applying sterilized intervention. This is to minimize whatever negative effects the inflows may bring to the system. This can partly explain a generally stable period for prices.<sup>5</sup>

The question is: What has been the impact of sterilized intervention on domestic interest rate? Figures 5 and 6 provide an answer. Figure 5 shows the ratio of M3 to RM, which is an indicator of money multiplier. One can observe that since 1992, money multiplier has been increasing; from 2.66 in that year to 3.58 in 1995. In Figure 6, we plotted the ratio of required reserve to total deposit, which is an indicator of required reserve ratio (RRR). One can observe that RRR has been declining during the years when the money multiplier has been increasing. In principle, RRR is a determinant of money multiplier. If RRR decreases, money multiplier increases.

Reserve requirement is a distortionary tax on financial intermediation. It increases the cost of capital of financial institutions, which in turn is passed on to the borrowers and users of funds. Thus, when reserve requirement is reduced, interest rate tends to go down.<sup>6</sup>

Thus, from the data, it appears that the BSP has sterilized quite heavily the recent surge in NTF inflows. In principle, this could have a strong upward pressure on domestic interest rate. However, the sterilized intervention has been accompanied by a series of reduction in reserve requirements. This is seen in the rise in money multiplier. As a result the upward pressure on interest rate was mitigated.

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<sup>5</sup>However, total liquidity, as indicated by M3, has been growing rapidly, averaging a growth of 25.5 percent per year in the last three years.

<sup>6</sup>The present reserve requirement is 15 percent. The BSP is planning to further cut down this by another 2 percentage points before the end of the year. The proposed reduction can release some P10 billion in loanable funds into the financial system. Although this reduction is within the long-term plan to reduce intermediation cost, the 2 percentage point reduction was prompted by the continued low levels of inflation, which remained at single-digit levels for the past few months.

However, the sterilized intervention of the BSP has been carried out not without an economic cost. In fact, the cost, which is often called the quasi-fiscal cost, has been huge. The information that we were able to secure covered only the period from January to November 11, 1994. Within the period, the BSP purchased US\$2,739 million of foreign exchange from the market to perk up demand. These purchases accounted for 43 percent of the total volume of transactions in the foreign exchange market. At such level, BSP purchases were 46.8 percent of reserve money and 14.2 percent of total domestic liquidity. These purchases had cost the BSP some P5,753 million with a return of only P1,154 million. Thus, for the same period, the BSP incurred a net loss of P4,599 million, representing nearly half of the expected BSP net income for the whole year of 1994. On top of this cost, the BSP also recorded a revaluation loss in its balance sheet aggregating about P5.2 billion on account of these purchases.<sup>7</sup>

Table 7 shows the fiscal performance. From the chronic deficit in the 1980s and in the early 1990s, the National Government (NG) cash operations generated big surpluses in the last two years and in the first nine months of 1996. In 1994, overall surpluses was P18 billion (1.0 percent of GNP). In 1995, another fiscal surplus amounting to P10 billion (0.5 percent of GNP) was generated. Therefore, the successive surpluses in government reduce the need to issue government debt to finance government operations, thereby minimize the upward pressure on interest rates.

Overall, based on the above review of economic data, capital inflows have been quite huge. This is partly due to the economic reforms implemented and the ongoing economic recovery which favorably signal investors (both foreign and local) to come and invest in the Philippines. However, capital inflows come in huge volume to form like a shock to the system. Thus, if nothing is done to minimize its adverse on the economy, it can create instability specially to the financial system. Based on the movements of relevant data, it appears that the authorities implemented a coordinated set of fiscal and monetary policies to combat the possible negative impact of the inflows. Sterilized intervention was applied, but this was accompanied by a series of reduction in reserve requirements and improvement in NG cash operation.

### **Effects of Real Appreciation of the Exchange Rate**

We have seen above that although inflation and interest rates have remained stable at present. However, the real exchange rate has appreciated. This section will discuss the effects of real exchange appreciation on the export sector. But first we examine the structure of the export sector to get an idea which sectors are been performing above par and which are not.

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<sup>7</sup>Bangko Sentral ng Pilipinas. "Primer on the Exchange Rate and on BSP Measures to Support Exports".

### Structure of the Export Sector

Tables 8 to 11 show the structure of the export sector. In 1995, the total value of Philippine merchandise exports amounted to US\$17.5 billion (almost 23 percent of GNP). Total exports has registered impressive growth in the last four years. In 1995 alone, total export grew by 29.4 percent. In the first 8 months of 1996, total exports has already registered a growth of 16.5 percent.

However, the structure of the export sector is lopsided. It is highly dominated by only 2 nontraditional, manufacturing industries: the electronics (or semi-conductor) and the garments industries. In 1995, the electronics industry captured about 43 percent of the total export value, while the garments industry 15 percent. Thus, the two industries capture more than half of the entire export receipts. This structure has been existing since the 1980s. One should note that these two industries have very limited link with the domestic economy because almost all of their material requirements are imported. Take the case of the garments industry. Because of very inefficient and uncompetitive local textile industry, the export garments sector imports raw fabrics to be able to compete in the world market both in terms of price and quality. In the electronics or semi-conductor industry, the Philippines does not have any precision sector to supply the input requirements of the industry. Thus, while both sectors are generating sizeable export receipts, they are also the major users of such receipts through the imports of their raw material requirements. In net terms, therefore, their contribution to the total export earning has always been marginal.

On the other hand, the traditional export sector, the major *net* export earner, has generally been in dismal stage. Although coconut export (particular coconut oil) registered an impressive growth of 20 percent in 1994 and another 55 percent in 1995, in general the agricultural or resource-based exports have not been performing well.

In the last three years, exports of garments decelerated substantially. In fact, in the first six 8 months of 1996, it registered a negative growth of -3.6 percent. The garments industry has to be restructured, especially with under the gradual phasing out of the Multifiber Agreement, otherwise it will soon join the ranks of what we call the sunset industries.

The electronics industry however, continues to register robust growth. In fact, in the last few years, it contributed almost all of the growth in total exports.

### Impact on Competitiveness.<sup>8</sup>

Medalla computed the ratio of domestic resource cost (DRC) and shadow exchange rate (SER) of the Philippine manufacturing sector. Medalla found that around 28 percent of manufacturing has comparative advantage, i.e., with DRC/SER ratio of less or equal to one. However, in terms of "market DRC" the percentage reduces to only 13 percent of the manufacturing which have the capability of its own to actually compete in the world market.

Medalla experimented with different exchange rate factors in the computation and found out that for an additional *real peso appreciation of say 10 percent, the list of industries with competitive advantage (the ones with DRC/SER of less or equal to one) would be reduced by 8 percentage points*. In her computations, the estimates show that the industries will be dominated by the electronic sector. This result would indicate the critical role and the impact of the exchange rate on Philippine industries.

### Impact on Relative Incentives and Resource Allocation.

Tables 12 and 13 show data on Board of Investment (BOI) approved projects (new and expansion). One can observe that there is a declining share of export-oriented firms in BOI-approved projects. Export producers accounted for more than 70 percent of project cost between 1983 and 1986. In 1993 this went down to 25 percent. In 1994, it further declined to 15 percent.

The same trend is seen in data on foreign direct investment. In fact, the trend in the distribution of foreign equity of BOI-approved projects replicates that of the distribution of project cost of BOI-approved new and expansion projects over the same period. In 1985, around 97 percent of foreign equity investments of BOI-approved projects are export-oriented. The share declined to around 40 percent in 1993 and further down to 21 percent in 1994.

The real appreciation of the foreign exchange could be a major reason behind this trend. In principle, a real appreciation of the domestic currency raises the price of nontradables (NT) relative to tradables (T) (both exportables (X) and importables (M)). The increase in the price of NT increases its relative attractiveness, inducing therefore a corresponding flow of resources. Within the NT sector, the effects would vary. Those sub-sectors with the lowest value-added coefficient are the ones who would benefit the most from the a real appreciation of the currency. *Within the T sector, on the other hand, the exporting sectors with the highest value added coefficient would be the ones who would be most adversely affected.* The trend seen in the investment data could be a result of changes in relative prices due to the real appreciation of the domestic currency.

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<sup>8</sup>The discussion of this issue, and the next one that follows, is based on the unpublished paper of Medalla.

Thus, Medalla concluded that "If prolonged, the real appreciation of the domestic currency could translate into a corresponding resource flow which would bring about relatively more investments going into nontradable sectors vis-a-vis exportable sectors".

### Impact on Growth and Inflation.

Using a Philippine economic model<sup>9</sup>, Cororaton (1996) simulated the effect of real appreciation of the currency on the overall output growth of the economy. His conclusion was that, between the period 1988 and 1994, output growth could have grown 5.1 percent more had the exchange not allowed to appreciate in real terms. The impact of nominal depreciation of the currency on prices is not significant as generally claimed. A nominal depreciation that would just allow real exchange rate to maintain its level<sup>10</sup> would have a marginal effect of 2.3 percent on inflation rate. Thus the result would show that the output effect of a constant real exchange rate is higher than the inflation effect.

### **Policy Implications.**

Cororaton (1996) has indicated that while the authorities applied a coordinated monetary and fiscal policies to minimize the adverse effects on the economy, they could not prevent the real appreciation of the peso despite the active sterilized intervention policy mode of the monetary authorities. There are two plausible reasons behind this: (1) the reactionary exchange rate policy; and (2) the lag in the real sector reforms relative to the financial sector reforms.

The issue on exchange rate adjustments and realignment has become highly politicized in the Philippines. There has been strong and growing resistance to any exchange rate depreciation from various groups, especially from big businesses, militant labor groups, and even small farmers. This is because major exchange rate adjustments and realignment in the Philippines took place during periods of severe economic crisis. Therefore, exchange rate policy has not been used as part of a development strategy, but as a reactionary policy tool during periods of economic crunch and instability. Thus, exchange rate depreciation in the Philippines has always been associated by the majority with stagflation. The efficiency, competitiveness, and growth issues that come along with an excha

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<sup>9</sup>A financial computable general equilibrium model of the Philippine constructed by Jemio and Vos (1993).

<sup>10</sup>During the period inflation in the Philippine was higher than its trading partners.

The analysis of Cororaton showed that there are strong indications that the financial sector reforms have been implemented quite aggressively relative to the real sector reforms. For example, although nominal tariffs have been reduced as part of the real sector reforms, the manufacturing sector has enjoyed higher effective protection rate (EPR) from 1988 to 1992 if all exemptions, incentives and subsidies are taken into account. Thus, the relatively aggressive financial sector reform may have created wrong market signals that led to surges in capital inflows. The fact that the effective protection is still in placed may have prevented the absorptive capacity of the economy in general to be able to utilize the capital inflows efficiently.



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## *List of Tables*

**Table 1**  
**Data on Exchange Rate and Other Macro Variables**

Year	Exchange Rate (Level)	Exchange Rate	Growth Rates			PGDP	CPI72	Growth Rates		Ratio with GDP	
			Real GDP	Agriculture	Non-Agriculture			Export	Imports	BOP	CA
1960	2.02										
1961	2.02	0.00	5.62	6.69	5.16	3.14	4.66	3.31	1.81	n.a	n.a
1962	3.73	84.65	4.77	4.55	4.87	6.75	3.29	15.89	0.80	n.a	n.a
1963	3.91	4.83	7.06	7.08	7.05	8.79	8.13	19.09	-4.71	n.a	n.a
1964	3.91	0.00	3.45	0.32	4.80	4.51	8.70	6.00	20.61	n.a	n.a
1965	3.91	0.00	5.27	7.36	4.40	3.91	3.12	13.60	6.01	n.a	n.a
1966	3.90	-0.26	4.43	3.83	4.68	5.33	4.87	6.10	4.80	n.a	n.a
1967	3.92	0.51	5.32	2.43	6.55	1.96	5.65	-14.42	22.90	n.a	n.a
1968	3.93	0.26	4.95	6.54	4.30	6.41	2.02	-11.28	6.32	n.a	n.a
1969	3.93	0.00	4.66	3.85	4.99	5.89	1.40	-4.37	3.41	n.a	n.a
1970	6.02	53.18	3.76	0.45	5.13	15.16	15.27	20.61	-5.46	0.04	-0.09
1971	6.43	6.81	5.43	4.04	5.97	14.40	21.41	3.41	-0.57	0.01	-0.01
1972	6.67	3.73	5.45	5.37	5.47	6.51	8.20	12.49	2.98	0.15	0.02
1973	6.76	1.35	8.92	7.44	9.49	16.87	16.53	16.05	5.40	3.02	2.41
1974	6.79	0.44	3.56	-3.19	6.11	32.60	34.16	-11.41	15.19	0.47	-0.76
1975	7.25	6.77	5.56	1.66	6.91	9.32	6.79	3.53	6.07	-2.13	-3.66
1976	7.44	2.62	8.81	10.02	8.41	8.30	9.17	12.83	1.63	-0.60	-3.99
1977	7.40	-0.54	5.60	4.37	6.01	8.27	9.90	16.41	6.50	0.49	-2.70
1978	7.37	-0.41	5.17	3.72	5.65	9.33	7.34	6.06	12.73	-0.31	-3.75
1979	7.38	0.14	5.64	3.17	6.43	14.84	17.52	4.29	16.11	-1.85	-4.79
1980	7.51	1.76	5.15	4.04	5.49	14.25	18.21	39.82	19.60	1.08	-5.82
1981	7.90	5.19	3.42	3.62	3.36	11.70	13.07	9.48	-0.79	-1.62	-6.10
1982	8.54	8.10	3.62	0.78	4.49	8.70	10.24	-10.69	2.45	-4.81	-9.21
1983	11.11	30.09	1.87	-3.38	3.43	14.22	10.02	3.45	-3.06	-6.01	-7.81
1984	16.70	50.32	-7.32	-0.93	-9.10	53.34	50.34	4.54	-17.48	0.76	-3.47
1985	18.61	11.44	-7.31	-1.88	-8.95	17.63	23.11	-16.07	-14.20	7.70	-0.34
1986	20.39	9.56	3.42	3.68	3.33	2.95	0.75	16.91	10.24	3.99	3.06
1987	20.57	0.88	4.31	3.22	4.67	7.50	3.79	6.83	28.63	0.81	-1.36
1988	21.10	2.58	6.75	3.24	7.88	9.65	8.76	14.53	19.62	1.85	-1.11
1989	21.74	3.03	6.21	3.01	7.19	9.03	10.59	8.87	15.18	1.22	-3.93
1990	24.31	11.82	3.04	0.48	3.79	12.97	12.68	1.86	10.04	-0.24	-6.63
1991	27.48	13.03	-0.58	1.37	-1.14	16.53	13.04	6.27	-1.12	5.42	-2.24
1992	25.51	-7.16	0.34	0.39	0.32	7.91	14.21	4.28	8.69	5.29	-3.04
1993	27.24	6.79	2.14	2.13	2.14	6.89	15.29	6.22	12.23	-0.62	-11.07
1994	26.33	-3.36	4.28	2.39	4.84	9.67	16.67	19.48	17.91	6.20	-9.76

n.a. - no data available

Source: Bangko Sentral ng Pilipinas

**Table 2A**  
**Balance of Payments**  
**(in Million US Dollars)**

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1988 Jan-Jun
1 <i>Mdse. Trade</i>	-1939	-2224	-2648	-2482	-879	-482	-202	-1017	-1085	-2598	-4020	-3211	-4895	-8222	-7850	-8944	-5990
2 Exports	5788	5722	5021	5005	5391	4629	4842	5720	7074	7821	8186	8840	9824	11375	13483	17447	9583
3 Imports	7727	7946	7667	7487	6070	5111	5044	6737	8159	10419	12206	12051	14519	17597	21333	26391	15573
4 <i>Non-Mdse. Trade</i>	-599	-309	-1040	-740	-823	0	715	0	-80	314	739	1515	3020	2507	3984	6084	3913
5 Inflows	2222	2896	2983	3127	2626	3288	3791	3454	3592	4588	4842	5624	7443	7497	10550	15412	10994
6 Tourism	320	344	450	465	366	506	647	458	405	469	466	571	944	1178	973	1136	670
7 Personal Income	421	546	810	944	659	694	696	809	874	1002	1203	1649	2222	2276	3009	4928	3479
8 Peso Conversions of FCDs	148	232	236	386	279	429	417	379	435	690	643	868	1263	1680	2815	4721	2809
9 Outflows	2821	3205	4023	3867	3449	3288	3076	3454	3672	4274	4103	4109	4423	4990	6586	9328	7081
10 Interest expense	975	1374	1990	1985	2257	2250	2088	2107	2159	2411	2026	1993	1703	1518	1579	1875	927
11 <i>Transfers, Net</i>	434	472	488	472	388	379	441	573	775	830	714	827	817	899	938	880	351
12 Inflows	451	485	498	483	387	388	445	575	778	832	717	828	826	746	1041	1146	479
13 Outflows	17	13	12	11	1	9	4	2	3	2	3	1	9	47	105	286	128
14 <i>Current Acct. Bal.</i>	-2104	-2081	-3200	-2750	-1118	-103	954	-444	-390	-1454	-2587	-889	-858	-3018	-2950	-1980	-1728
15 <i>L-T Loans, Net</i>	1032	1332	1548	1392	478	2787	732	159	-519	381	408	922	888	2105	1313	1108	824
16 Inflows	1579	2072	2533	2336	1259	3962	2605	2598	2412	2797	4321	3613	7436	4853	4369	3803	2484
17 Outflows	547	740	985	944	781	1175	1873	2439	2931	2416	3915	2691	6770	2748	3058	2697	1660
18 <i>Foreign Direct Invest't</i>	-102	175	17	112	17	17	140	328	988	843	480	854	737	812	1558	2328	1804
<i>of which:</i>																	
19 Net Direct Investment	-2	196	132	220	122	47	146	362	983	559	528	529	675	864	1289	1125	509
20 Net portfolio	-100	-21	-115	-108	-105	-30	-6	-36	3	284	-48	125	62	-52	259	1201	1095
21 <i>S-T Capital, Net</i>	324	-28	108	-618	549	-1731	-824	80	-303	-89	19	349	660	-148	1002	-56	182
22 Purchase Collateral	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23 Change in Com'l Banks' NFA	-	-	-	-	-	-	-	-	-	-	120	-181	459	-547	465	1309	4149
24 Error & Omissions	112	-408	-371	-387	161	638	33	-144	422	383	431	584	-360	84	180	-2155	-2624
25 <i>Capital Acct. Bal.</i>	1388	1074	1302	499	1205	2271	81	421	588	1518	1458	2328	1893	2308	4498	2530	4135
26 Mon. of Gold	128	400	277	183	169	221	279	365	314	288	218	245	130	113	154	177	103
27 Alloc. of SDRs	29	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Unromit. Arrears	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28 Revaluation Adj.	28	13	-50	-50	-15	-88	-72	-78	83	101	800	399	527	431	100	-96	-97
30 <i>Bal. of Payments</i>	-353	-547	-1871	-2118	243	2301	1242	284	593	451	-93	2103	1492	-188	1802	631	2415

Source: *Bangko Sentral ng Pilipinas*.

Table 2B  
Selected Ratios

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 1st Sem.
<b>As % of GNP</b>																	
Balance of Trade	-8.0	-6.3	-7.2	-7.6	-2.2	-1.6	-0.7	-3.1	-2.9	-6.1	-9.1	-7.1	-8.9	-11.3	-11.9	-11.7	-14.5
Exports	17.9	16.1	13.7	15.3	17.7	15.1	16.2	17.2	18.7	18.4	18.5	19.5	18.5	20.7	20.5	22.8	23.1
Imports	23.9	22.4	20.9	22.9	19.9	16.6	16.9	20.3	21.5	24.5	27.5	26.5	27.4	32.0	32.4	34.4	37.6
Non-Merchandise Trade	-1.8	-0.9	-2.8	-2.3	-2.7	0.0	2.4	0.0	-0.2	0.7	1.7	3.3	5.7	4.6	6.0	7.9	9.4
Personal Income	1.3	1.5	2.2	2.9	2.2	2.3	2.3	2.4	2.3	2.4	2.7	3.6	4.2	4.1	4.6	6.4	8.4
FCDUs	0.5	0.7	0.6	1.2	0.9	1.4	1.4	1.1	1.1	1.6	1.5	1.9	2.4	3.1	4.3	6.2	6.8
Interest Expense	3.0	3.9	5.4	6.1	7.4	7.3	7.0	6.3	5.7	5.7	4.6	4.4	3.2	2.8	2.4	2.4	2.2
Current Account	-8.5	-5.8	-8.7	-8.4	-3.7	-0.3	3.2	-1.3	-1.0	-3.4	-5.8	-1.9	-1.6	-5.5	-4.5	-2.6	-4.2
Foreign Direct Investments	-0.3	0.5	0.0	0.3	0.1	0.1	0.5	1.0	2.6	2.0	1.1	1.4	1.4	1.5	2.4	3.0	3.9
Medium & Long-Term Loans	3.2	3.8	4.2	4.3	1.6	9.1	2.5	0.5	-1.4	0.9	0.9	2.0	1.3	3.8	2.0	1.4	2.0
Capital Account	4.2	3.0	3.5	1.5	4.0	7.4	0.3	1.3	1.5	3.6	3.3	5.1	3.2	4.2	6.8	3.3	10.0
Error & Omissions	0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	-0.0	-0.1
Balance of Payment	-0.0	-0.0	-0.0	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.1
Gross Int'l Reserves/ave mo imports	4.9	3.9	2.7	1.4	1.8	2.5	5.9	3.5	3.0	2.7	2.0	4.5	4.3	4.0	3.9	3.5	7.7

Source of Basic Data: Bangko Sentral ng Pilipinas.

Table 3  
Foreign Investments  
(In Million US Dollars)

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 (1st. Sem)
<b>Foreign Investments, Net</b>	-102	176	17	112	17	17	140	326	986	843	480	664	737	812	1558	2328	1604
<b>Inflow</b>	119	240	194	256	137	124	186	439	1077	961	706	799	1364	3607	6276	6869	6399
<b>Direct Investments</b>	114	243	193	247	137	105	157	415	999	568	550	556	776	1238	1591	1524	855
<b>Resident</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Non-Resident</b>	114	243	193	247	137	105	157	415	999	568	550	556	776	1238	1591	1524	855
New Foreign Equity Investments in the Phill.	75	91	25	119	32	9	17	34	81	93	171	130	234	547	930	760	249
Reinvested Earnings	39	62	44	26	15	10	20	22	17	56	28	34	42	43	29	23	39
Technical Fees and Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Converted into Equity	0	90	124	88	61	31	32	17	8	38	22	50	41	5	36	22	0
Debt Conversions	0	0	0	0	0	0	14	287	806	306	226	273	269	193	2	0	0
Bond Conversions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	46	99
Imports Converted into Investments	0	0	0	4	29	14	6	14	5	1	2	6	5	0	1	6	0
Bank Inter-Branch Operations	0	0	0	0	0	41	68	41	82	74	101	83	185	313	481	576	340
Others	0	0	0	0	0	0	0	0	0	0	0	0	0	137	67	91	128
<b>Portfolio Investments</b>	5	5	1	8	0	19	29	24	78	393	156	242	588	2369	3685	5335	4544
<b>Resident</b>	0	0	0	1	0	2	16	3	27	7	4	15	22	112	706	595	576
Residents' Withdrawal of Foreign Investments Abroad	0	0	0	1	0	2	16	3	27	7	4	15	22	112	706	595	576
<b>Non-Resident</b>	5	5	1	7	0	17	13	21	51	386	152	227	566	2257	2979	4740	3968
<b>Outflow</b>	221	73	177	143	120	107	46	113	91	118	226	144	627	2796	3718	4533	3796
<b>Direct Investments</b>	116	47	61	27	15	58	11	53	16	9	22	27	101	374	302	399	346
<b>Resident</b>	116	47	61	27	15	58	11	53	16	9	22	27	101	374	302	399	346
Residents' Investments Abroad	86	47	61	27	15	24	2	1	4	0	4	2	24	323	112	103	112
Bank Inter-Branch Operations	30	0	0	0	0	34	9	52	12	9	18	25	77	51	190	296	234
<b>Non-Resident</b>	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Portfolio Investments</b>	105	26	116	116	105	49	35	60	75	109	204	117	626	2421	3416	4134	3449
<b>Resident</b>	1	2	0	0	3	12	0	2	1	14	0	15	115	1061	1338	2024	2090
<b>Non-Resident</b>	104	24	116	116	102	37	35	58	74	95	204	102	411	1360	2078	2110	1359

... Less than one million U.S. dollars

p/ Preliminary

Source: Bangko Sentral ng Pilipinas

**Table 4**  
**Capital Flows to Developing Countries 1/**  
**(in billion US dollars)**

	1977-1982 Annual Average	1983-1989 Annual Average	1990	1991	1992	1993	1994
<b>All developing countries 2/</b>							
Total net capital inflows	30.5	8.8	39.8	92.9	111.6	154.7	125.2
Foreign direct investment plus portfolio investment (net)	0.7	19.8	25.7	51.3	77.2	141.1	118.0
Net foreign direct investment	11.2	13.3	19.5	28.8	38.0	52.8	56.3
Net portfolio investment	-10.5	6.5	6.2	22.5	39.1	88.3	61.7
Other	29.8	-11.0	14.2	41.7	34.5	13.6	7.2
<b>Asia</b>							
Total net capital inflows	15.8	16.7	25.6	50.7	39.2	72.0	73.4
Foreign direct investment plus portfolio investment (net)	3.3	6.6	9.4	18.0	27.3	59.5	65.0
Net foreign direct investment	2.7	5.2	9.8	14.9	19.9	35.6	36.9
Net portfolio investment	0.6	1.4	-0.4	3.1	7.4	23.9	28.1
Other	12.5	10.1	16.2	32.7	11.9	12.5	8.4

1/ Flows exclude exceptional financing. A number of countries do not report assets and liabilities separately. For these countries, it is assumed that there are no outflows, so that liabilities are set equal to the net value. To the extent that this assumption is not valid, the data underestimate the gross value. Adjustments are also made to the World Economic Outlook data to net out the effect of bonds exchanged for commercial bank loans in debt and debt service reduction operations and to provide additional detail on selected private capital flows.

2/ Excludes capital exporting countries such as Kuwait and Saudi Arabia.

Source: "International Capital Markets: Dev'ts., Prospects & Policy Issues"  
World Economic & Financial Surveys, IMF.

**Table 5**  
**Asset Acquisition of Bangko Sentral ng Pilipinas**

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 1st Sem.
<b>Gross int'l Reserves</b> <i>(Million US \$)</i>	3,155	2,574	1,711	865	886	1,061	2,459	1,959	2,059	2,324	1,993	4,470	5,218	5,801	6,995	7,647	9,959
<b>DIFFERENCE</b>		(581)	(863)	(846)	21	175	1,398	(500)	100	285	(331)	2,477	748	583	1,194	652	2,312
<b>GROWTH RATE</b>		(18.4)	(33.5)	(49.4)	2.4	19.8	131.8	(20.3)	5.1	12.9	(14.2)	124.3	16.7	11.2	20.6	9.3	30.2
<b>Net Foreign Assets</b> <i>(Million Pesos)</i>	(2,749)	(13,358)	(34,026)	(61,115)	(87,658)	(118,033)	(133,287)	(132,252)	(121,581)	(108,236)	(140,546)	(68,549)	38,162	56,769	91,784	118,356	183,948
<b>DIFFERENCE</b>		(10,609)	(20,668)	(27,089)	(26,543)	(30,375)	(15,254)	1,035	10,671	13,345	(32,310)	71,997	106,711	18,607	35,015	26,572	65,592
<b>GROWTH RATE</b>												(51.2)	(155.7)	48.8	61.7	29.0	55.4
<b>Net Domestic Assets</b> <i>(Million Pesos)</i>	19,141	31,341	53,069	89,073	121,290	156,480	184,316	189,990	188,863	201,112	249,267	187,912	108,676	114,977	90,629	84,379	17,523
<b>DIFFERENCE</b>		12,200	21,728	36,004	32,217	35,190	27,836	5,674	(1,127)	12,249	48,155	(51,355)	(91,236)	8,301	(24,348)	3,750	(78,856)
<b>GROWTH RATE</b>		63.7	69.3	67.8	36.2	29.0	17.8	3.1	(0.6)	6.5	23.9	(20.6)	(48.1)	7.8	(21.2)	4.1	(81.4)
<b>Reserve Money</b> <i>(Million Pesos)</i>	16,392	17,983	19,043	27,958	33,632	38,447	51,029	57,738	67,282	92,876	108,721	129,363	144,838	171,746	182,413	212,735	201,471
<b>DIFFERENCE</b>		1,591	1,080	8,915	5,874	4,815	12,582	6,709	9,544	25,594	15,845	20,642	15,475	28,908	10,867	30,322	(11,264)
<b>GROWTH RATE</b>		9.7	5.9	46.8	20.3	14.3	32.7	13.1	16.5	38.0	17.1	19.0	12.0	18.6	6.2	16.6	(5.3)



**Table 6**  
**Regression Result 7**  
**Method: OLS**  
**Dependent Variables: Net Foreign Assets**

Variable	NFA
Constant	-2785.913 (-3.973)
Net Domestic Assets	-0.889 (-17.063)
Gross National Product	0.148 (16.465)
91-Day TBills Rate	-21.780 (0.524)
Inflation Rate	1.148 (0.058)
Current FOREX	2.000 (0.156)
R squared	0.993
Durbin-Watson	1.382

**Table 7**  
**National Government Cash Operations**  
**for periods indicated**  
**in million pesos**

Items	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 Jan-Sept.
<b>I. Revenues</b>	34,731	35,933	38,205	45,632	56,861	68,961	79,245	103,214	112,861	152,410	180,902	220,787	242,715	260,405	335,227	360,215	303,413
1. Tax Revenues	30,533	31,423	33,779	39,524	50,118	61,253	65,491	85,923	90,352	122,462	151,698	182,275	208,706	230,171	271,456	309,978	267,886
2. Non-Tax Revenues	4,198	4,510	4,426	6,108	6,743	7,708	13,754	17,291	22,509	29,948	29,204	38,512	34,009	30,234	63,771	50,237	35,122
<b>II. Expenditures</b>	38,118	48,079	52,610	53,063	66,926	80,102	110,497	119,907	136,067	171,978	218,096	247,136	258,680	282,296	317,113	350,041	295,923
A. Current Operating Expenditures	24,516	26,390	31,746	34,522	42,873	55,275	71,330	96,265	113,595	144,632	n.a.	n.a.	219,505	234,561	n.a.	n.a.	-
of which:																	
1. Interest Payments	2,296	2,429	3,560	4,996	10,409	14,652	20,953	36,905	45,865	54,714	71,113	74,922	79,539	76,489	79,008	72,851	60,551
a. Domestic	-	-	-	-	6,141	10,459	15,156	24,301	32,183	41,033	53,727	56,347	63,112	56,183	59,771	51,569	-
b. Foreign	-	-	-	-	4,268	4,193	5,797	12,604	13,682	13,681	17,386	18,575	16,427	20,306	19,237	21,282	-
2. Personal Services	9,331	10,631	10,847	13,877	16,854	22,898	24,991	32,527	40,795	51,366	n.a.	n.a.	74,337	78,696	n.a.	n.a.	-
B. Capital Expenditures	8,405	12,679	9,278	10,400	9,786	8,796	11,683	12,151	15,234	21,157	n.a.	n.a.	46,125	37,830	n.a.	n.a.	-
C. Net Lending & Equity	5,197	9,010	11,586	8,132	14,267	16,031	27,484	11,481	7,238	6,189	2,769	5,965	(8,950)	9,905	7,171	8,296	2,754
<b>III. Overall Surplus/Deficit (-)</b>	(3,387)	(12,146)	(14,405)	(7,431)	(10,065)	(11,141)	(31,252)	(16,693)	(23,206)	(19,568)	(37,194)	(26,349)	(15,985)	(21,891)	18,114	10,174	7,490
% of GNP	-1.39	-4.33	-4.59	-2.05	-1.98	-2.00	-5.24	-2.49	-2.93	-2.15	-3.47	-2.10	-1.16	-1.46	1.04	0.52	
<b>IV. Financing</b>	3,387	12,146	14,405	7,431	10,065	11,141	31,252	16,693	23,206	19,568	37,194	26,349	15,985	21,891	(18,114)	(10,174)	(7,490)
A. Domestic Financing	983	6,154	9,808	1,994	8,061	11,481	27,672	9,912	18,964	11,358	33,067	19,469	1,575	8,979	(4,408)	2,721	155,777
1. Net Domestic Borrowings	1,092	8,828	6,602	6,591	16,000	12,871	28,449	34,337	35,087	20,450	15,143	34,368	138,247	(28,565)	(9,497)	19,824	76,118
Gross Domestic Borrowings	5,067	12,403	10,541	8,096	17,142	15,778	35,461	58,618	47,339	37,210	30,097	64,722	148,145	(16,990)	4,620	58,724	85,927
Less: Amortizations	3,975	3,575	3,939	1,505	1,142	2,907	7,012	24,281	12,252	16,760	14,954	30,354	9,898	11,575	14,117	39,100	9,809
2. Non-Budgetary Accounts	1,034	688	1,925	(1,959)	268	381	2,592	(1,268)	1,936	4,080	4,859	3,243	(48,013)	13,305	(31,265)	(35,441)	14,172
3. Use of Cash Balances	(1,143)	(3,362)	1,281	(2,638)	(8,207)	(1,771)	(3,369)	(23,157)	(18,059)	(13,182)	13,065	(18,142)	(90,659)	24,239	36,354	18,538	65,487
B. Foreign Financing	2,404	5,992	4,597	5,437	2,004	(340)	3,580	8,781	4,242	8,210	4,127	6,880	14,390	12,912	(13,706)	(12,895)	(3,948)
Gross Domestic Borrowings	3,055	6,724	5,388	7,684	5,069	3,704	9,769	15,420	17,290	19,953	24,406	23,086	34,143	38,223	11,239	16,824	14,788
Less: Amortizations	651	732	791	2,247	3,065	4,044	6,189	8,639	13,048	11,743	20,279	16,208	19,753	25,311	24,845	29,719	18,717

Source: Bureau of Treasury

**Table 8**  
**Exports By Major Commodity Group**  
**(FOB Value in million US dollars)**

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1996	
																		Jan-Aug	Jan-Aug
<b>I. Traditional Exports (unmanufactured)</b>	3,722	3,283	2,594	2,557	2,483	1,947	1,958	2,001	2,467	2,453	2,210	2,163	2,246	2,307	2,481	3,027	2,083	1,770	
Coconut Products	820	756	593	682	733	466	474	566	582	541	503	447	643	532	639	989	669	455	
Coconut Oil						347	333	381	408	377	361	299	481	358	475	828	558	358	
Sugar and Sugar Products	657	604	441	316	278	185	103	71	74	113	133	138	110	129	77	74	74	99	
Fruits and Vegetables	232	251	282	221	262	258	275	203	306	319	328	393	371	439	429	458	317	323	
Forests Products	425	352	294	331	271	199	201	243	261	197	95	73	57	45	23	38	23	21	
Mineral Products	1,174	976	687	633	494	570	539	462	764	829	723	610	633	686	780	893	602	537	
Others	414	354	297	374	444	271	364	376	480	454	430	504	432	476	533	575	378	335	
<b>II. Petroleum Products</b>						91	94	133	162	95	155	175	150	136	132	171	86	172	
<b>III. Nontraditional Exports</b>																			
Nontraditional Manufacturing	1,996	2,369	2,373	2,357	2,775	2,539	2,672	3,430	4,338	5,192	5,707	6,403	7,298	8,729	10,615	13,668	8,806	10,779	
Elec & Elec Equip/Parts & Telecom	671	338	1,000	1,053	1,329	1,056	919	1,119	1,478	1,751	1,964	2,293	2,753	3,551	4,984	7,413	4,605	6,270	
Garments	502	618	541	545	603	623	751	1,008	1,317	1,575	1,776	1,981	2,140	2,272	2,375	2,570	1,676	1,616	
Chemicals	89	105	95	88	185	150	243	245	258	279	281	304	268	262	306	343	231	217	
Machinery & Transport Eqpl.	47	47	48	35	36	30	45	78	54	115	150	181	288	363	469	741	405	716	
Processed Food & Beverages	92	154	150	127	109	106	116	126	184	208	207	233	220	271	303	292	208	219	
Others	595	1,107	539	509	593	574	598	764	1,051	1,266	1,349	1,531	1,629	2,010	2,178	2,509	1,881	1,741	
<b>IV Special Transactions</b>	33	50	45	57	8	12	8	7	27	10	19	17	32	38	74	108	61	82	
<b>V. Re-Exports</b>	37	10	9	34	125	40	112	149	80	71	95	82	98	165	181	273	191	248	
<b>Total Exports</b>	<b>5,788</b>	<b>6,722</b>	<b>6,021</b>	<b>6,005</b>	<b>6,391</b>	<b>4,629</b>	<b>4,842</b>	<b>5,720</b>	<b>7,074</b>	<b>7,821</b>	<b>8,186</b>	<b>8,840</b>	<b>9,824</b>	<b>11,376</b>	<b>13,483</b>	<b>17,447</b>	<b>11,207</b>	<b>13,061</b>	

Source: *Bengko Sentral ng Pilipinas*

**Table 9**  
**Exports By Major Commodity Group**  
**Growth Rates (%)**

	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	1995 Jan-Aug
<b>I. Traditional Exports (unmanufactured)</b>	(11.5)	(21.2)	(1.4)	(2.9)	(21.6)	0.5	2.3	23.3	(0.8)	(9.9)	(2.1)	3.8	2.7	7.5	22.0	(14.2)
<b>Coconut Products</b>	(7.8)	(21.6)	15.0	7.5	(36.4)	1.7	19.4	2.8	(7.0)	(7.0)	(11.1)	43.8	(17.3)	20.1	54.8	(32.0)
Coconut Oil						(4.0)	14.4	7.1	(7.8)	(4.2)	(17.2)	60.9	(25.8)	32.7	73.9	(38.2)
<b>Sugar and Sugar Products</b>	(8.1)	(27.0)	(28.3)	(11.7)	(33.7)	(44.3)	(31.1)	4.2	52.7	17.7	2.3	(19.1)	17.3	(40.3)	(3.9)	33.8
<b>Fruits and Vegetables</b>	8.2	12.4	(21.6)	18.8	(2.3)	7.4	2.9	8.1	4.2	2.2	20.8	(5.6)	18.3	(2.3)	6.8	1.9
<b>Forests Products</b>	(17.2)	(16.5)	12.6	(18.1)	(26.6)	1.0	20.9	7.4	(24.5)	(51.8)	(23.2)	(21.9)	(21.1)	(48.9)	65.2	(8.7)
<b>Mineral Products</b>	(18.9)	(29.6)	(7.9)	(22.0)	15.4	(5.4)	(14.3)	65.4	8.5	(12.8)	(15.6)	3.8	8.4	13.7	14.5	(10.8)
<b>Others</b>	(14.5)	(16.1)	25.9	18.7	(39.0)	34.3	3.3	27.7	(5.4)	(5.3)	17.2	(14.3)	10.2	12.0	7.9	(11.4)
<b>II. Petroleum Products</b>						3.3	41.5	21.8	(41.4)	83.2	12.9	(14.3)	(9.3)	(2.9)	29.5	100.0
<b>III. Nontraditional Exports</b>																
<b>Nontraditional Manufacturing</b>	18.7	0.2	(0.7)	17.7	(8.5)	5.2	28.4	26.5	19.7	9.9	12.2	14.0	19.8	21.6	30.6	22.4
<b>Elec &amp; Elec Eqpt/Parts &amp; Telecom</b>	(49.6)	195.9	5.3	28.2	(20.5)	(13.0)	21.8	31.8	18.8	12.2	16.8	20.1	29.0	40.4	48.7	36.2
<b>Garments</b>	23.1	(12.5)	0.7	10.8	3.3	20.5	46.2	19.9	19.8	12.8	4.8	15.0	6.2	4.5	8.2	(3.8)
<b>Chemicals</b>	18.0	(8.5)	(7.4)	19.3	42.9	62.0	0.8	4.5	9.0	(6.5)	16.5	(11.8)	(2.2)	16.8	12.1	(6.1)
<b>Machinery &amp; Transport Eqpt.</b>	0.0	2.1	(27.1)	2.9	(16.7)	50.9	73.3	(30.8)	113.0	30.4	20.7	59.1	26.0	29.2	58.0	78.8
<b>Processed Food &amp; Beverages</b>	67.4	(2.6)	(15.3)	(14.2)	(2.8)	9.4	8.6	46.0	12.0	0.5	12.6	(5.6)	23.2	11.8	(3.6)	5.3
<b>Others</b>	86.1	(51.3)	(5.6)	16.5	(3.2)	4.2	27.8	37.8	20.5	6.6	13.5	6.4	23.4	8.4	15.2	3.8
<b>IV Special Transactions</b>	51.5	(10.0)	26.7	(68.0)	50.0	(33.3)	(12.5)	285.7	(83.0)	90.0	(10.5)	88.2	18.8	94.7	45.9	34.4
<b>V. Re-Exports</b>	(73.0)	(10.0)	277.8	267.6	(68.0)	180.0	33.0	(48.3)	(11.3)	33.8	(13.7)	19.5	68.4	9.7	50.8	29.8
<b>Total Exports</b>	(1.1)	(12.3)	(0.3)	7.7	(14.1)	4.6	18.1	23.7	10.6	4.7	8.0	11.1	15.8	18.5	29.4	16.5

Source: *Bangko Sentral ng Pilipinas*

**Table 10**  
**Exports By Major Commodity Group**  
**(Percent Distribution)**

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
	Jan-Aug. Jan-Aug.																	
<b>I. Traditional Exports (unmanufactured)</b>	64.3%	57.5%	51.7%	51.1%	48.1%	42.1%	40.4%	35.0%	34.9%	31.4%	27.0%	24.5%	22.9%	20.3%	18.4%	17.3%	18.4%	13.6%
Coconut Products	14.2%	13.2%	11.8%	13.8%	13.8%	10.1%	9.8%	9.9%	8.2%	6.9%	6.1%	5.1%	8.5%	4.7%	4.7%	5.7%	6.0%	3.5%
Coconut Oil	0.0%	0.0%	0.0%	0.0%	0.0%	7.5%	6.9%	6.7%	5.8%	4.8%	4.4%	3.4%	4.9%	3.1%	3.5%	4.7%	5.0%	2.7%
Sugar and Sugar Products	11.4%	10.6%	8.8%	6.3%	5.2%	4.0%	2.1%	1.2%	1.0%	1.4%	1.6%	1.5%	1.1%	1.1%	0.6%	0.4%	0.7%	0.8%
Fruits and Vegetables	4.0%	4.4%	5.8%	4.4%	4.9%	5.5%	5.7%	4.9%	4.3%	4.1%	4.0%	4.4%	3.8%	3.9%	3.2%	2.6%	2.8%	2.5%
Forests Products	7.3%	6.2%	5.9%	6.6%	5.0%	4.3%	4.2%	4.2%	3.7%	2.5%	1.2%	0.8%	0.6%	0.4%	0.2%	0.2%	0.2%	0.2%
Mineral Products	20.3%	17.1%	13.7%	12.6%	9.2%	12.3%	11.1%	8.1%	10.8%	10.6%	8.8%	6.9%	6.4%	6.0%	5.8%	5.1%	5.4%	4.1%
Others	7.2%	6.2%	5.9%	7.5%	8.2%	5.9%	7.5%	6.6%	6.8%	5.8%	5.3%	5.7%	4.4%	4.2%	4.0%	3.3%	3.4%	2.6%
<b>II. Petroleum Products</b>	0.0%	0.0%	0.0%	0.0%	0.0%	2.0%	1.9%	2.3%	2.3%	1.2%	1.9%	2.0%	1.5%	1.2%	1.0%	1.0%	0.8%	1.3%
<b>III. Nontraditional Exports</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nontraditional Manufacturing	34.5%	41.4%	47.3%	47.1%	51.5%	54.8%	55.2%	60.0%	61.3%	66.4%	69.7%	72.4%	74.3%	76.7%	78.7%	79.5%	78.6%	82.6%
Elec & Elec Eqpt/Parts & Telecom	11.6%	5.9%	10.9%	21.0%	24.7%	22.8%	19.0%	19.6%	20.9%	22.4%	24.0%	25.9%	28.0%	31.2%	37.0%	42.5%	41.1%	48.0%
Garments	8.7%	10.8%	10.8%	10.9%	11.2%	13.5%	15.5%	19.2%	18.6%	20.1%	21.7%	21.1%	21.8%	20.0%	17.6%	14.7%	15.0%	12.4%
Chemicals	1.5%	1.8%	1.9%	1.8%	1.9%	3.2%	5.0%	4.3%	3.6%	3.6%	3.2%	3.4%	2.7%	2.3%	2.3%	2.0%	2.1%	1.7%
Machinery & Transport Eqpt.	0.8%	0.8%	1.0%	0.7%	0.7%	0.6%	0.9%	1.4%	0.8%	1.5%	1.8%	2.0%	2.9%	3.2%	3.5%	4.2%	3.8%	5.5%
Processed Food & Beverages	1.6%	2.7%	3.0%	2.5%	2.0%	2.3%	2.4%	2.2%	2.6%	2.6%	2.5%	2.6%	2.2%	2.4%	2.2%	1.7%	1.9%	1.7%
Others	10.3%	19.3%	10.7%	10.2%	11.0%	12.4%	12.4%	13.4%	14.9%	16.2%	16.5%	17.3%	16.6%	17.7%	16.2%	14.4%	15.0%	13.3%
<b>IV Special Transactions</b>	0.8%	0.9%	0.9%	1.1%	0.1%	0.3%	0.2%	0.1%	0.4%	0.1%	0.2%	0.2%	0.3%	0.3%	0.5%	0.6%	0.5%	0.6%
<b>V. Re-Exports</b>	0.6%	0.2%	0.2%	0.7%	2.3%	0.8%	2.3%	2.6%	1.1%	0.9%	1.2%	0.9%	1.0%	1.5%	1.3%	1.6%	1.7%	1.8%
<b>Total Exports</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Bangko Sentral ng Pilipinas

**Table 11**  
**Exports By Major Commodity Group**  
**Sources of Growth**

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 Jan-Aug
<b>I. Traditional Exports (unmanufactured)</b>	(7.4)	(12.2)	(0.7)	(1.5)	(9.9)	0.2	0.9	8.1	(0.2)	(3.1)	(0.6)	0.9	0.6	1.5	4.0	(2.5)
Coconut Products	(1.1)	(2.8)	1.8	1.0	(5.0)	0.2	1.9	0.3	(0.8)	(0.5)	(0.7)	2.2	(1.1)	0.9	2.6	(1.8)
Coconut Oil	0.0	0.0	0.0	0.0	0.0	(0.3)	1.0	0.5	(0.4)	(0.2)	(0.0)	2.1	(1.3)	1.0	2.6	(1.7)
Sugar and Sugar Products	(0.9)	(2.8)	(2.5)	(0.7)	(1.7)	(1.8)	(0.7)	0.1	9.8	0.3	0.0	(0.3)	0.2	(0.5)	(0.0)	0.1
Fruits and Vegetables	0.3	0.5	(1.2)	0.8	(0.1)	0.4	0.2	0.4	0.2	0.1	0.8	(0.2)	0.7	(0.1)	0.2	0.0
Forests Products	(1.3)	(1.0)	0.7	(1.2)	(1.3)	0.0	0.9	0.3	(0.9)	(1.3)	(0.3)	(0.2)	(0.1)	(0.2)	0.1	(0.0)
Mineral Products	(3.4)	(5.1)	(1.1)	(2.8)	1.4	(0.7)	(1.6)	5.3	0.9	(1.4)	(1.4)	0.3	0.5	0.8	0.8	(0.6)
Others	(1.0)	(1.0)	1.5	1.4	(3.2)	2.0	0.2	1.8	(0.4)	(0.3)	0.9	(0.8)	0.4	0.5	0.3	(0.4)
<b>II. Petroleum Products</b>	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.5	(0.9)	0.8	0.2	(0.3)	(0.1)	(0.0)	0.3	1.0
<b>III. Nontraditional Exports</b>																
Nontraditional Manufacturing	6.4	0.1	(0.3)	8.4	(4.4)	2.9	15.7	15.9	12.1	8.6	8.5	10.1	14.6	16.6	24.1	17.8
Elec & Elec Eqpt/Parts & Telecom	(5.8)	11.6	1.1	5.5	(5.1)	(3.0)	4.1	8.2	3.9	2.7	4.0	5.2	8.1	12.8	18.0	15.4
Garments	2.0	(1.3)	0.1	1.2	0.4	2.8	7.2	3.8	3.8	2.6	1.0	3.2	1.3	0.9	1.4	(0.5)
Chemicals	0.3	(0.2)	(0.1)	0.3	0.8	2.0	0.0	0.2	0.3	(0.2)	0.5	(0.4)	(0.1)	0.4	0.3	(0.1)
Machinery & Transport Eqpt.	0.0	0.0	(0.3)	0.0	(0.1)	0.3	0.7	(0.4)	0.9	0.4	0.4	1.2	0.8	0.9	2.0	3.3
Processed Food & Beverages	1.1	(0.1)	(0.5)	(0.4)	(0.1)	0.2	0.2	1.0	0.3	0.0	0.3	(0.1)	0.5	0.3	(0.1)	0.1
Others	8.0	(9.9)	(0.6)	1.7	(0.4)	0.5	3.4	5.0	3.0	1.1	2.2	1.1	3.9	1.5	2.5	0.5
<b>IV. Special Transactions</b>	0.3	(0.1)	0.2	(1.0)	0.1	(0.1)	(0.0)	0.3	(0.2)	0.1	(0.0)	0.2	0.1	0.3	0.3	0.2
<b>V. Re-Exports</b>	(0.5)	(0.0)	0.5	1.8	(1.6)	1.8	0.8	(1.2)	(0.1)	0.3	(0.2)	0.2	0.7	0.1	0.7	0.5
<b>Total Exports</b>	(1.1)	(12.3)	(0.3)	7.7	(14.1)	4.6	18.1	23.7	10.6	4.7	6.0	11.1	15.8	18.5	29.4	16.5

Source: Bangko Sentral ng Pilipinas

**Table 12**  
**Percentage Distribution of Foreign Equity Investments**  
**of BOI-Approved Projects by Sector**  
**New and Expansion Projects, with incentives : 1985-1994**

	1985	1986	1988	1990	1991	1992	1993	1994
<b>DOMESTIC</b>	<b>2.9</b>	<b>19.0</b>	<b>43.0</b>	<b>52.8</b>	<b>64.1</b>	<b>64.4</b>	<b>60.4</b>	<b>78.7</b>
Manufacturing	1.2	1.0	31.8	10.3	50.3	25.9	23.5	32.2
Agriculture, Forestry & Fishery	1.7	15.5	7.8	0.0	0.0	0.1	0.2	0.0
Mining	0.0	0.0	0.2	4.5	2.0	1.2	0.2	0.7
Energy-related projects	0.0	2.5	3.1	23.4	24.5	35.8	34.0	35.1
Tourism-oriented projects	0.0	0.0	0.0	10.8	3.8	0.0	0.9	3.6
Public utilities	0.0	0.0	0.0	0.2	0.2	1.0	0.4	5.6
Others	0.0	0.0	0.0	3.5	3.3	0.4	1.3	1.4
<b>EXPORT</b>	<b>97.1</b>	<b>81.0</b>	<b>57.0</b>	<b>47.2</b>	<b>15.9</b>	<b>35.6</b>	<b>39.6</b>	<b>21.3</b>
Manufacturing	96.2	74.8	54.6	46.2	12.2	31.5	38.2	21.2
Agriculture, Forestry & Fishery	0.0	5.8	1.4	0.9	3.5	2.3	0.0	0.1
Mining	0.0	0.0	0.3	0.0	0.1	1.8	1.3	0.0
Energy-related projects	0.9	0.4	0.7	0.0	0.0	0.0	0.0	0.0
Tourism-oriented projects	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Note : Others include Service, Agricultural farm services, Infrastructure/ind'l service facilities, Export traders, Commerce and Research & development activities.

Source : Board of Investments

**Table 13**  
**Percentage Distribution of Project Cost**  
**of BOI-Approved Projects by Sector**  
**New & expansion projects, with incentives, 1985 - 1994**

	1985	1986	1988	1990	1991	1992	1993	1994
<b>DOMESTIC</b>	<b>25.3</b>	<b>28.4</b>	<b>43.0</b>	<b>74.0</b>	<b>85.3</b>	<b>78.5</b>	<b>75.0</b>	<b>85.9</b>
Manufacturing	0.9	8.4	29.2	18.8	48.1	34.2	30.6	33.0
Agriculture, Forestry & Fishery	17.8	19.3	5.7	0.8	0.7	2.5	2.1	0.5
Mining	1.6	0.0	0.7	7.2	2.5	1.0	0.1	0.4
Energy-related projects	5.0	0.7	4.2	23.4	27.2	36.2	38.7	26.2
Tourism-oriented projects	0.0	0.0	0.3	12.9	4.1	1.2	0.7	1.9
Public utilities	0.0	0.0	2.9	3.5	1.3	1.7	1.9	19.0
Others	0.0	0.0	0.0	7.4	1.5	1.6	0.8	4.9
<b>EXPORT</b>	<b>74.7</b>	<b>71.6</b>	<b>57.0</b>	<b>26.0</b>	<b>14.7</b>	<b>21.5</b>	<b>25.0</b>	<b>14.1</b>
Manufacturing	73.8	67.6	47.1	23.0	13.1	14.9	21.3	13.0
Agriculture, Forestry & Fishery	0.6	0.9	5.4	0.4	1.2	6.4	1.0	0.3
Mining	0.0	0.0	1.2	2.6	0.4	0.3	2.7	0.8
Energy-related projects	0.4	3.1	3.0	0.0	0.0	0.0	0.0	0.0
Tourism-oriented projects	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Public utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>TOTAL</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

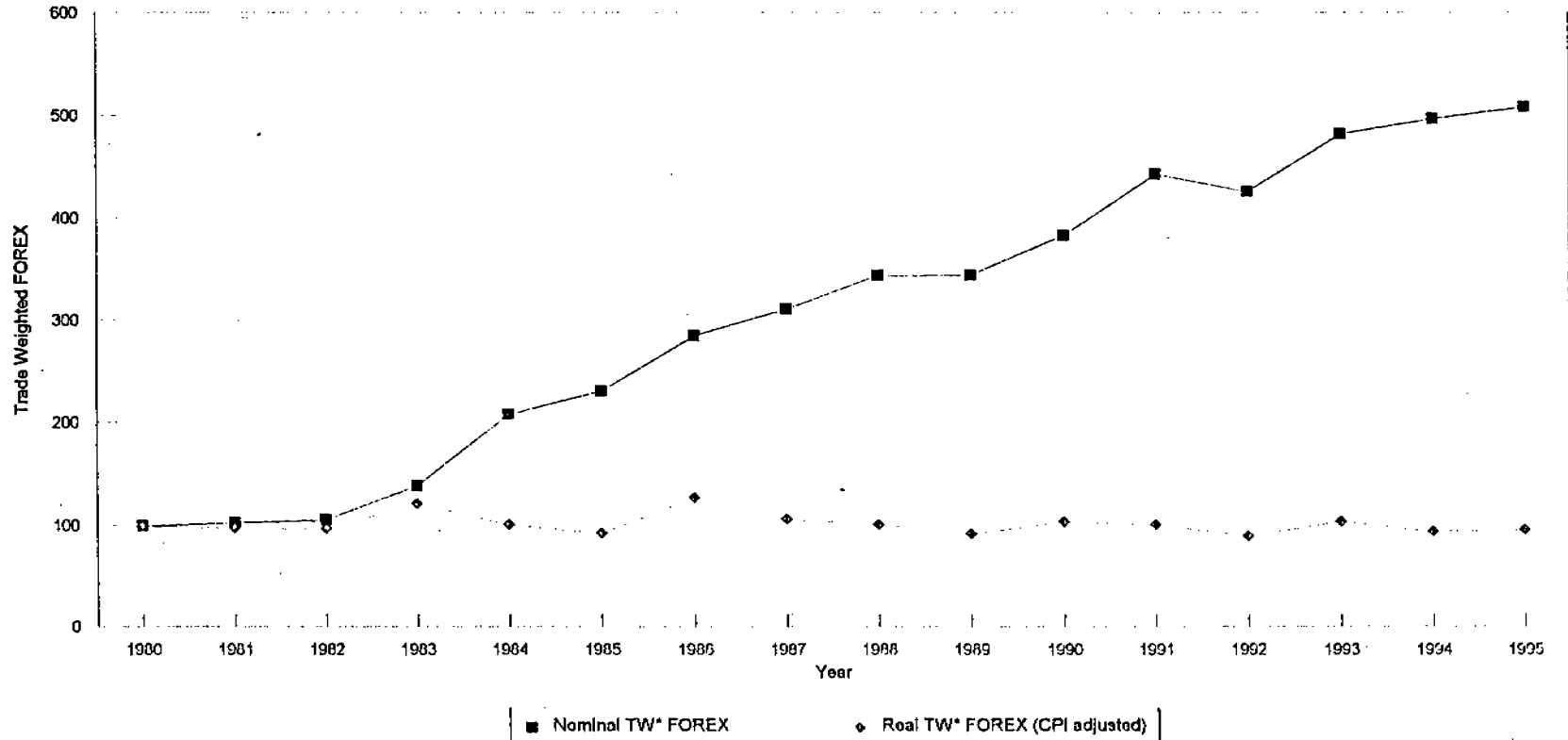
Note : Others include service, Agricultural farm services, Infrastructure/ind'l service facilities, Export traders, Commerce and Research and development activities.

Source : Board of Investments



## *List of Figures*

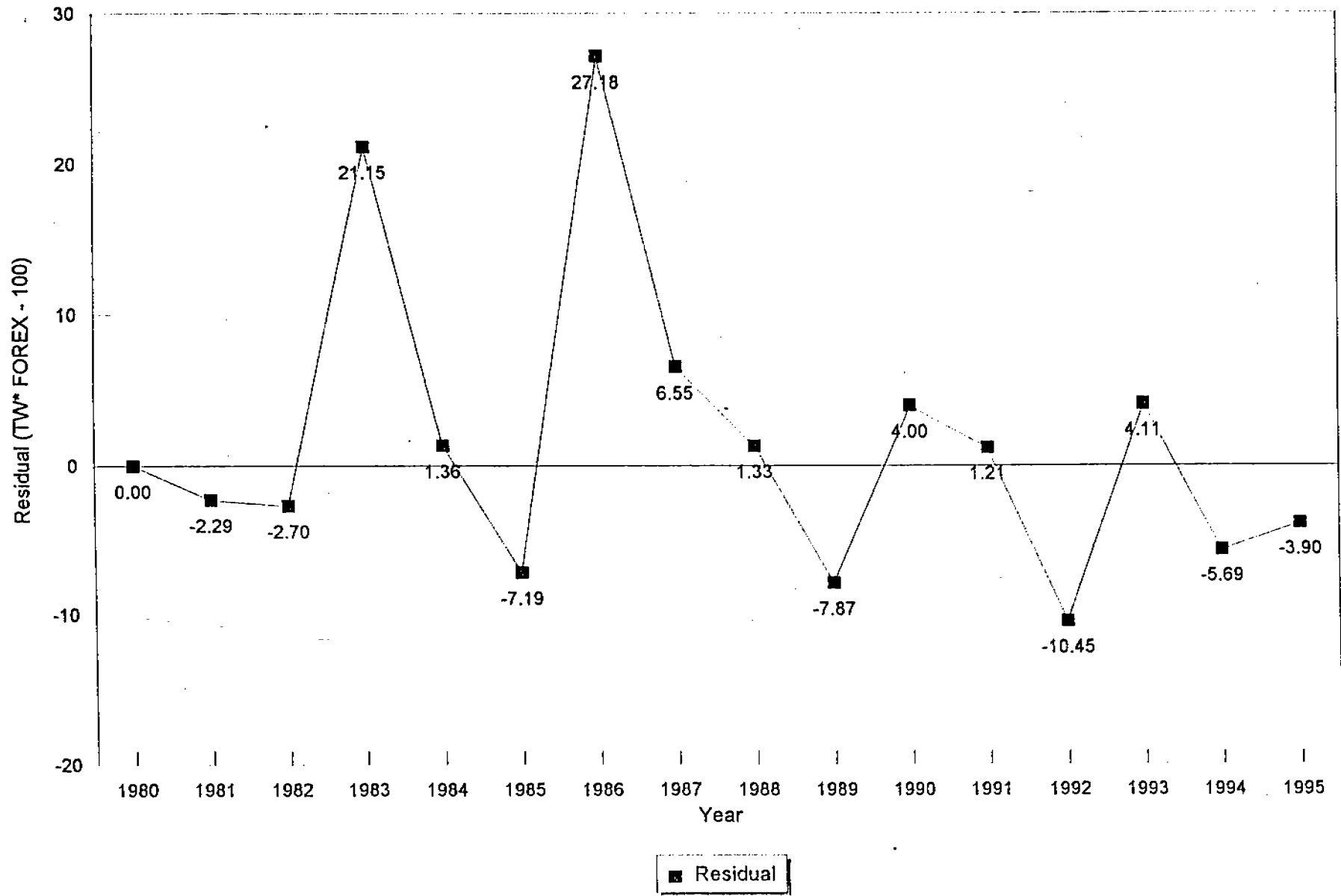
**Figure 1: Trade Weighted Exchange Rate,  
Nominal vs Real (CPI Adjusted)**



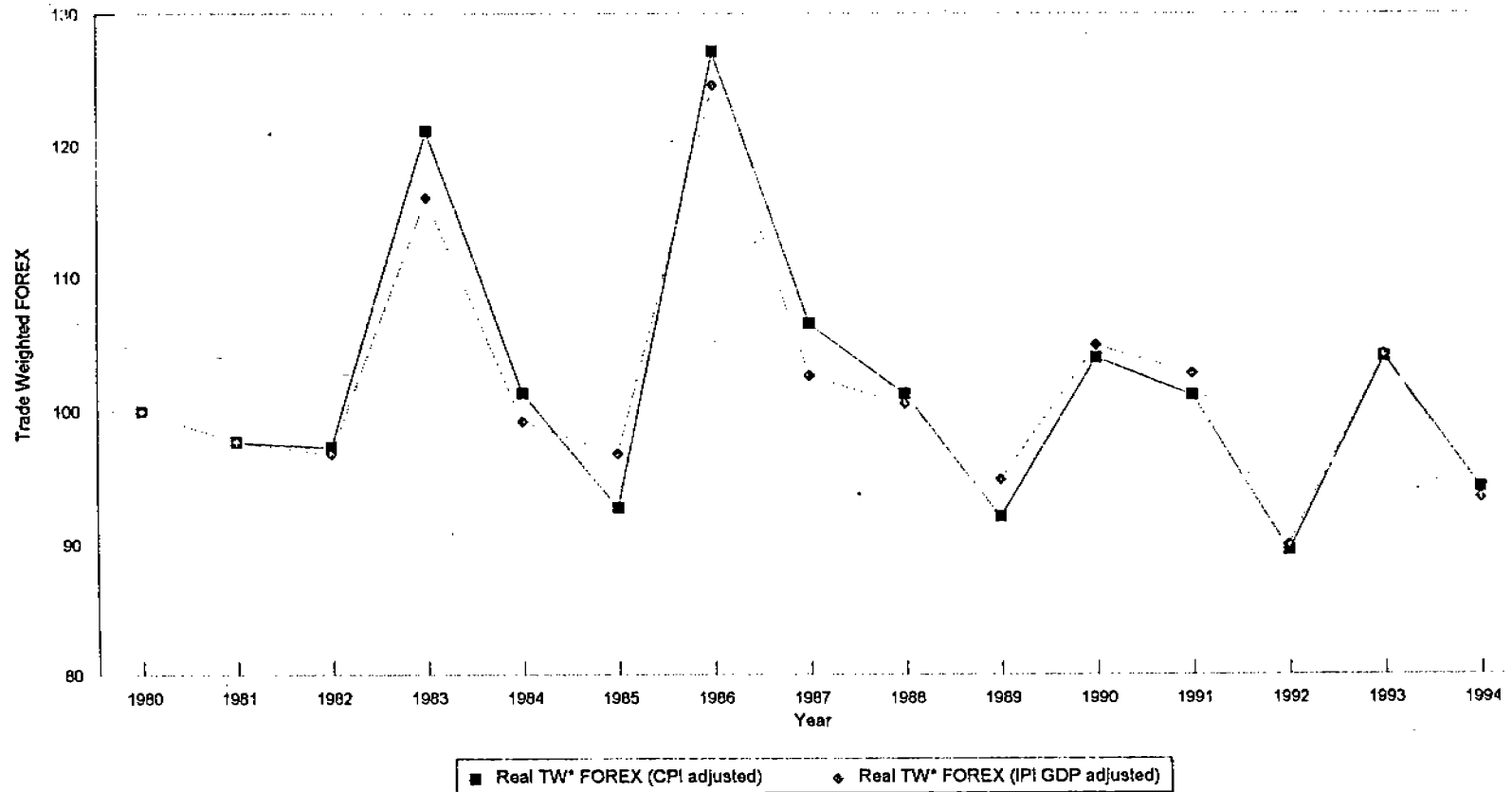
\* TW= Trade Weighted

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Nominal TW* FOREX	100.00	103.19	106.10	138.57	207.92	231.13	284.67	310.65	343.73	344.00	382.75	443.16	425.87	482.37	496.92	508.74
Real TW* FOREX(CPI adjusted)	100.00	97.71	97.30	121.15	101.36	92.81	127.18	106.55	101.33	92.13	104.00	101.21	89.55	104.11	94.31	96.10

**Figure 2: TW\* FOREX Deviations (CPI Adjusted)**



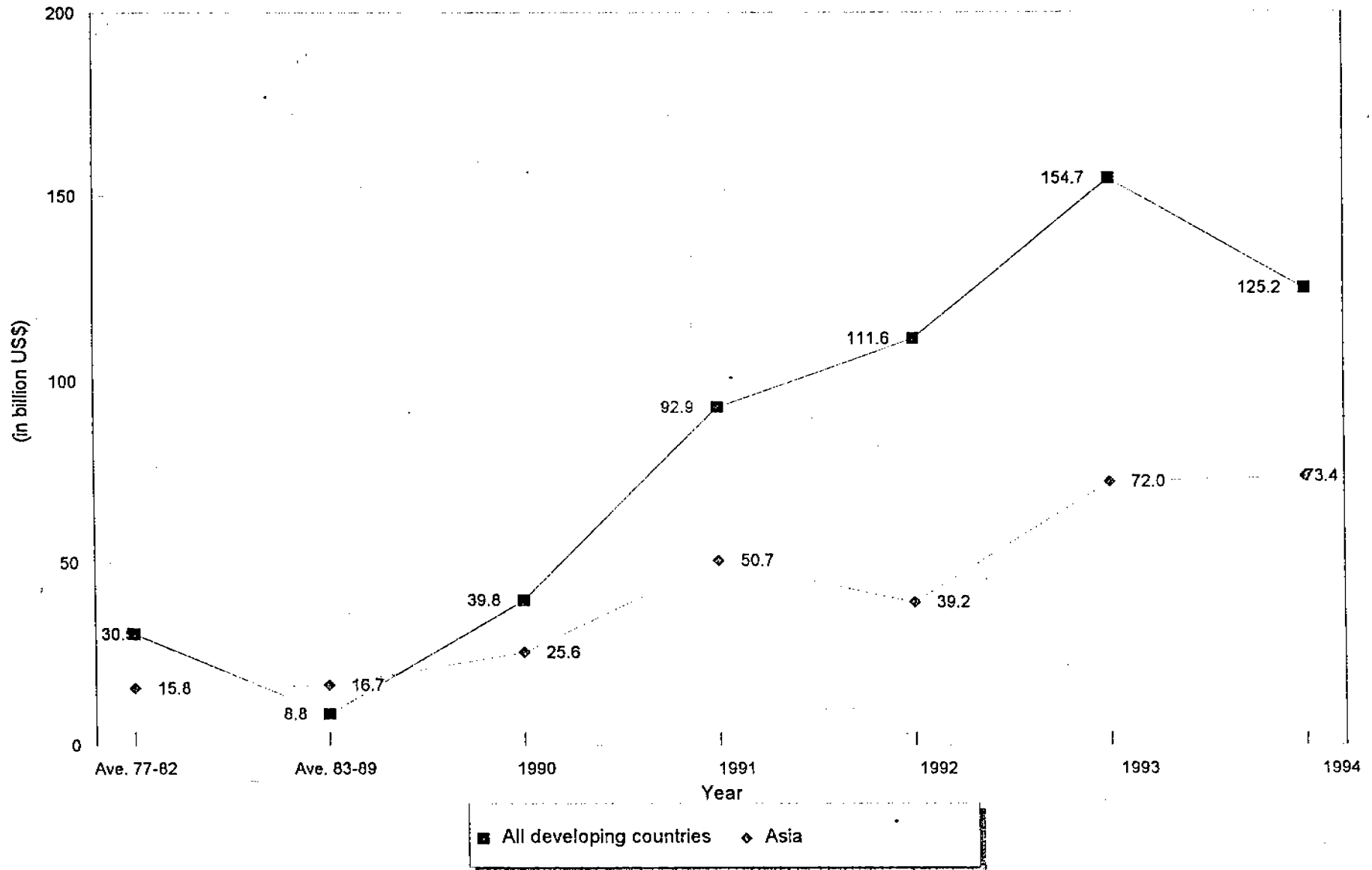
**Figure 3: Trade Weighted Exchange Rate  
Real (CPI Adjusted) vs Real (IPI GDP Adjusted)**



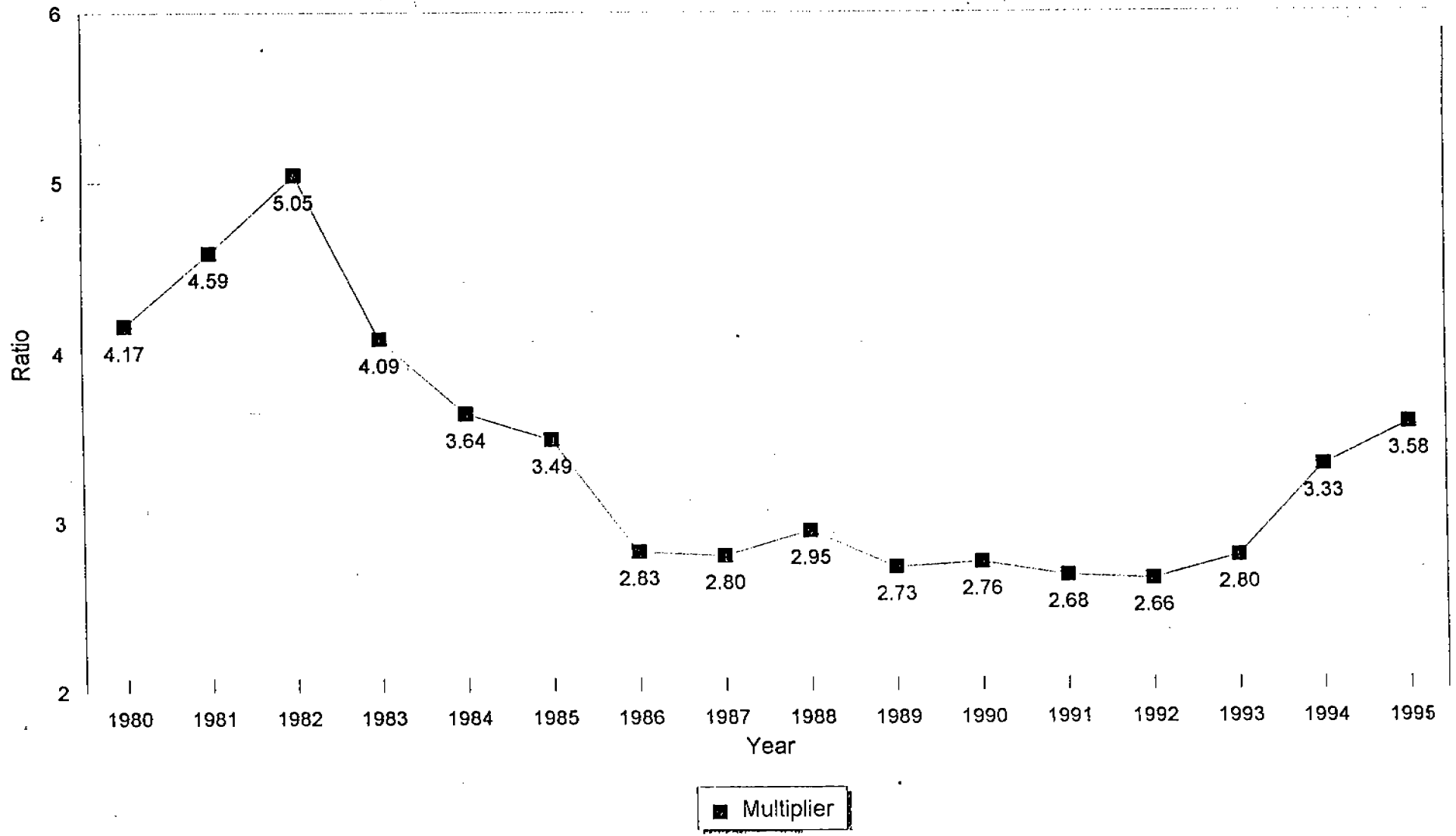
\*TW= Trade Weighted

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Real TW* FOREX (CPI adjusted)	100.00	97.71	97.30	121.15	101.36	92.81	127.18	106.55	101.33	92.13	104.00	101.21	89.55	104.11	94.31
Real TW* FOREX(IPI GDP adjusted)	100.00	97.71	96.84	116.01	99.22	96.80	124.65	102.69	100.55	94.90	104.95	102.85	89.97	104.29	93.51

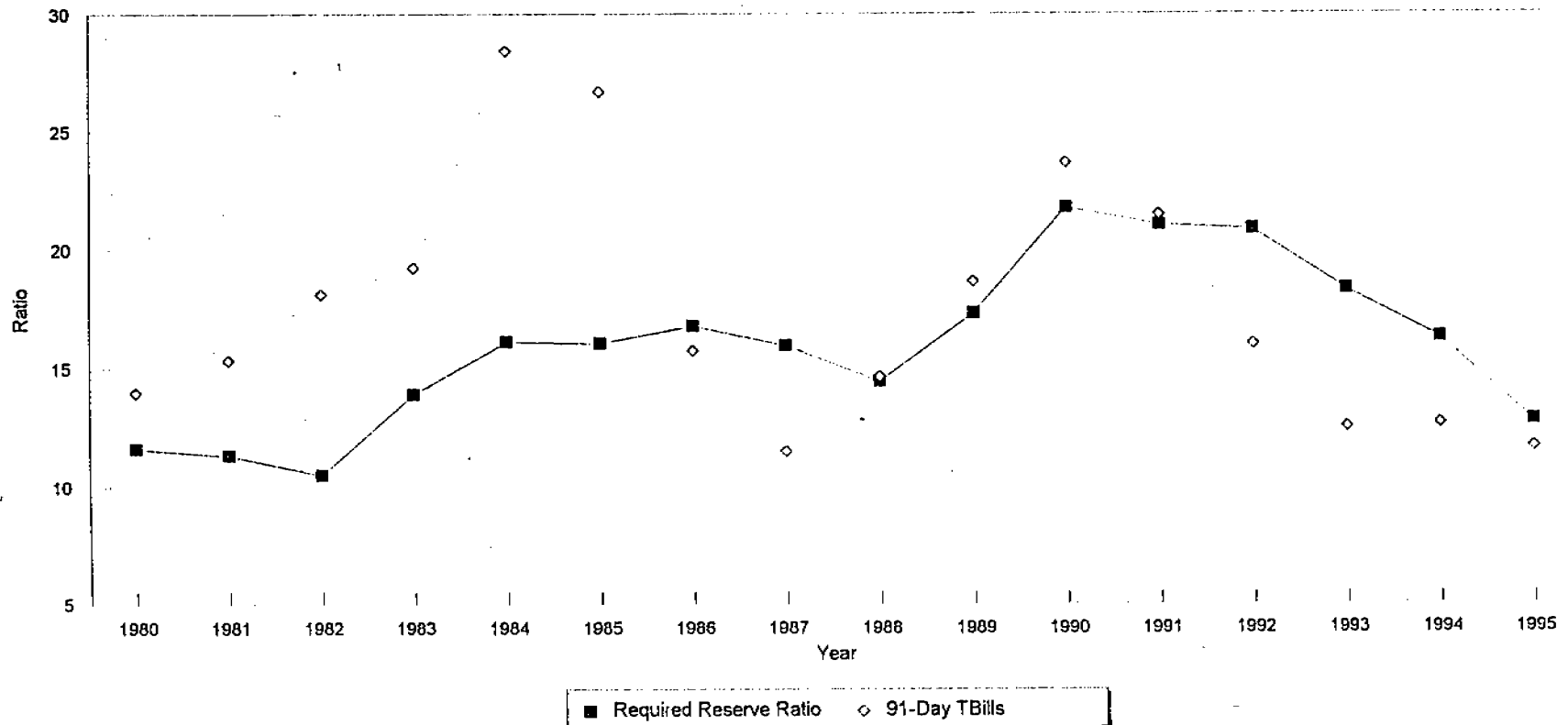
**Figure 4**  
**Capital Flows to Developing Countries**



*Figure 5*  
**Ratio of Domestic Liquidity with Reserve Money**



**Figure 6**  
**Required Reserve Ratio vs. 91 TBills**



Indicator	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Required Reserve Ratio	11.64	11.35	10.53	13.94	16.15	16.06	16.79	15.99	14.47	21.76	21.05	20.86	18.36	16.32	16.32	16.32
91-Day Treasury Bills	14	15	18	19	28	27	16	12	15	24	21	16	13	13	13	13