Chapter Title: Exchange Rate Policy

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external interest rate developments. One reason for the capital outflow prior to July 1987 was that Bank Indonesia had kept the SBI rate flat for a relatively long period, causing domestic interest rates to diverge from international interest rates. In a financially open economy like that of Indonesia, it is essential to recognize that external shocks will frequently make tradeoffs among interest rate stability, domestic income stability, and exchange rate stability inevitable.

It is clear from the manner in which the monetary contraction of June 1987 had to be implemented that the market for both SBI and SBPU was still too shallow. It may be difficult to increase their role if the financial markets remain underdeveloped. Financial deepening is an important priority, but not only because of the need to enhance the effectiveness of the monetary instruments. Financial deepening would also better mobilize (and maybe increase) domestic savings, reduce dependence on external credit, and improve the overall allocation of capital within the economy.

One of the first steps that could be undertaken to boost development of the financial sector would be to privatize some of the state enterprises. It would certainly ease Indonesia's external debt burden if a minority portion of these state enterprises were sold to foreigners. The possible increase in efficiency of these enterprises would be an added bonus.

6   Exchange Rate Policy

6.1   Introduction

In chapter 3 we identified an important political constituency (technocrats, Javanese peasants, and Outer Island residents) which is opposed to the maintenance of an overvalued exchange rate. We will show in this chapter that this constituency has been successful in influencing exchange rate policy, with the result that there is an asymmetry in policy response to changes in the balance of payments. It makes good economic sense to devalue the real exchange rate when a balance-of-payments deficit occurs, but due to the existence of this constituency it makes good political sense not to allow the real exchange rate to revalue when a surplus occurs. The fact that the institutional memory was impressed by the potency of the exchange rate in effecting economy-wide resource reallocation and income redistribution during the 1966 economic rehabilitation program helps to strengthen the economic argument for a devaluation whenever the balance-of-payments situation demands it. This exchange rate policy, as we will argue in chapter 7, played a crucial role in helping Indonesia to avoid a debt crisis in

1982–84 because it maintained a large and healthy tradable sector and discouraged capital flight. Given the crucial role of the exchange rate in external debt management, we focus on exchange rate management in some detail.

The statistical profile of the rupiah-dollar exchange rate in figure 6.1 is characterized by three distinct phases. The first phase, from October 1966 to July 1971, saw a steady dismantling of the multitiered exchange rate system into a unified exchange rate, revealing a readiness to have medium-sized devaluations at short intervals. In the second phase, from August 1971 to October 1978, there was a fixed exchange rate. The third phase occurred from November 1978 to March 1987 and was a time of large devaluations separated by moderately long periods of gradual exchange rate depreciation.

Since these three phases reflect policy responses to changes in the external environment and to developments internal to Indonesia, we will use them as a convenient way to organize our discussion of Indonesian exchange rate management. The discussion of phase 3 will revolve around the November 1978, March 1983, and September 1986 devaluations.

6.2   Phase 1, Pre–August 1971

When the New Order government of General Soeharto took power in October 1965, it inherited a system of multiple exchange rates.[1] This system not only allowed corruption because of the discretionary element inherent in
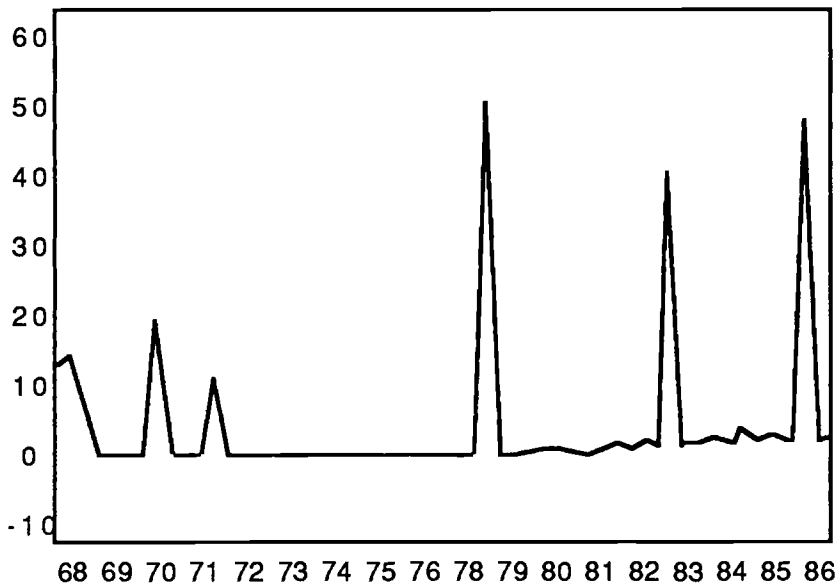

Fig. 6.1   Rupiah-dollar exchange rate changes (%), 1968–86

its administration, it also made smuggling an extremely profitable business. Since the array of exchange rates was set to promote domestic industrialization and extract revenue for the government, the exchange rate system discriminated against the traditional agricultural commodity exports. The fact that the whole exchange rate structure had become increasingly overvalued because of chronic high domestic inflation meant an acceleration in the pace of resource shift away from export activities. Many rural residents abandoned the cultivation of tree crops for subsistence farming.

The Soeharto regime made the maintenance of a competitive exchange rate and the simplification of the exchange rate system a key element in its economic rehabilitation program. A unified exchange rate was achieved in April 1970 when the government set its major import exchange rate (*Bonus Ekspor*, BE) to be the same as that of the then free market exchange rate (*Devisa Pelangkap*, DP) of 378 rupiahs to the dollar.[2] The government in this period displayed no reluctance to change the exchange rate whenever it seemed that a balance-of-payments problem was appearing.

Exchange rate realignments were quite frequent, with medium-sized devaluations undertaken at short intervals in order to preserve the competitiveness of Indonesian goods in the face of high domestic inflation rates. A good example is the August 1971 devaluation which brought the exchange rate to 415 rupiahs to the dollar. This devaluation was clearly implemented in response to the worsening of the current account deficit, which widened from 3.4 percent of GDP in 1970 to 4.0 percent in 1971 (see table 6.1). The deterioration in the balance of payments was partly the result of a slowdown in world economic growth and partly the result of the real appreciation of the rupiah caused by the relatively higher inflation rate in Indonesia during 1969 and 1970.

6.3   Phase 2, August 1971 to October 1978

The exchange rate remained at 415 rupiahs/dollar for a record seven years. The reason for this remarkable stability was straightforward: the balance of payments was very strong throughout the period. The current account deficit during phase 2 stayed below the 1971 figure of 4 percent of GDP (see table 6.2). The largest current account deficit occurred in 1975, 3.6 percent of

Table 6.1   Background to the August 1971 Devaluation (in percentages)

	1969	1970	1971	1972
Current account balance to GDP	−4.0	−3.4	−4.0	−3.0
Industrial countries' GDP growth rate	4.9	2.7	3.5	5.2
Industrial countries' inflation rate	4.7	5.6	5.2	4.6
Indonesia's inflation rate	17.4	12.3	4.4	6.4

Source: International Financial Statistics, 1986 yearbook.

Table 6.2   Economic Conditions During Period of Fixed Exchange Rate, August 1971 to
                   November 1978

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Current balance as % of GDP	−3.4	−4.0	−3.0	−2.9	2.3	−3.6	−2.4	−0.1	2.7
Current account receipts as % of GDP	13.6	14.8	17.2	20.7	29.1	23.1	23.6	23.9	22.0
Nongold reserves/imports (in weeks)	8.1	8.7	19.1	15.3	20.2	6.4	13.7	20.9	20.4
GDP growth rate (%)	6.5	7.0	9.4	11.3	7.6	5.0	6.9	8.9	7.7
Inflation rate (%)	12.3	4.4	6.4	31.0	40.6	19.1	19.8	11.0	8.1

GDP, when the rosy economic prospects induced by the oil boom caused both private and public spending to soar.

The proportion of national income from current account receipts leaped from the 1970–72 average of 15 percent to an average of 24 percent during 1973–78. The fear of a balance-of-payments crisis was never further away from the authorities' minds; there was little fear of not being able to accommodate any short-run speculative flight. The level of nongold reserves, measured as the number of weeks the nongold reserves could sustain existing import levels, was consistently higher than the 4.8 weeks of the 1967–69 period and the 12 weeks of the 1970–72 periods.[3] The impressive balance-of-payments performance is largely due to the rapid development of the petroleum and LNG sectors and the fourfold oil price increase at the end of 1973.

Besides the absence of a balance-of-payments reason for changing the exchange rate, the macroeconomic conditions of this period also did not warrant any additional stimulus which a devaluation would surely bring. The sustained high income growth rates of this period were without precedent in the Soekarno years. This high average income growth rate of 7.9 percent was achieved with substantial overheating of the economy—the average inflation rate was 22 percent compared with the 8 percent of 1970–72.

6.4   The November 1978 Devaluation

For most observers the devaluation of the rupiah on 15 November 1978 was a surprise. While it was generally agreed that the real exchange rate had appreciated significantly since 1971 and that there would be a need in the future, when oil reserves were closer to depletion, to devalue in order to boost nonoil exports, there was little expectation of an immediate devaluation.[4] There were no signs that the balance of payments was deteriorating—the current account deficit was 2.7 percent of GDP in 1978 and 0.1 percent in 1977, compared with 2.4 percent in 1976 and 3.6 percent in 1975. There were, in fact, numerous speculations in the Indonesian press during April and May 1978 that a *revaluation* of the rupiah might be

necessary given the plunge of the dollar vis-á-vis the other major currencies.[5]

Many explanations have been offered for the timing of the exchange rate realignment but they all tend to be combinations, with different emphasis, of two main interpretations. In the first interpretation the November 1978 devaluation is seen as an anticipatory action to the inevitable dropoff in oil export earnings due to resource depletion.[6] Arguments in support of the anticipatory devaluation interpretation are: (1) that it is better to act before a balance-of-payments crisis actually develops because this would prevent the financial chaos attendant upon a speculative outflow of domestic capital; and (2) since exports and imports react to relative price changes with substantial lags, a devaluation during a balance-of-payments crisis would have to be larger than is really necessary in order to have any immediate beneficial effects.

The second interpretation emphasizes the economic difficulties and political tensions associated with the reallocation of resources being forced upon the economy by the overvalued exchange rate. The overvaluation of the rupiah was the result of maintaining the exchange rate at 415 rupiahs/ dollar despite the large domestic inflations from 1974 to 1977. This meant that Indonesian producers of tradables were experiencing a profit squeeze— the prices of their output were fixed by international competition, but the prices of their domestic inputs were being driven up by the double-digit inflation. The result was reports of increasing unemployment in the tradables industries, particularly in the labor-intensive agricultural export sector. The stagnation of the manufacturing export industries was worrying because, being of a labor-intensive nature, they were looked upon as the means to soak up the natural increases in the labor force. Indonesia was suffering from the Dutch disease. The growth of the extremely capital-intensive oil industry caused the real exchange rate to appreciate, hence decimating the labor-intensive tradables industries. Since the oil industry constituted an enclave export sector with minimal linkages to the rest of the economy, the steady movement of resources into the service (nontradables) industries was a threat to the long-run growth rate of the economy.

The movement of resources out of the rural sector was hastened by another development. Protection was increasingly granted to import-competing industries in order to offset the profit squeeze caused by the overvalued rupiah, and this protectionist policy deteriorated the rural-urban terms of trade. Politically, the distress in the rural sector was undermining the efforts of the Soeharto regime to prevent the resurgence of the PKI, and it was also raising inter-island tensions because the Outer Islands depended heavily on the export of agricultural products. Given these economic and political costs of the Dutch disease, it was therefore not surprising that the government devalued, even in the absence of a balance-of-payments crisis.[7] Max Corden (1982) has aptly labelled the use of the exchange rate to protect

the tradable sector for reasons unrelated to balance-of-payments consider-
ations as "exchange rate protection."

The anticipatory devaluation interpretation and the Dutch disease
interpretation could both be right. They do not contradict each other. It must
be mentioned, however, that anticipatory devaluations are extremely rare
events, not only by the past experiences of other LDCs but also by
Indonesia's own history of devaluations. Devaluations, including the
Indonesian ones prior to 1978 and those of 1983 and 1986, usually occur
either in the midst of a balance-of-payments problem or when one is
imminent. And as shown in table 6.2, the level of foreign reserves in 1978
would have been able to sustain the existing amount of imports longer than
at any time during the 1970–76 period. Further, the anticipatory devaluation
explanation can be judged plausible only if it explains why the technocrats
reacted quite differently in 1978 toward potential balance-of-payments
problems than at any time before or after 1978.

It must be admitted, however, that the alleged deleterious effects of the
Dutch disease on the nonoil export sector are not obvious. Nonoil, nonLNG
exports, whether measured in physical units *or* in dollars *or* in the units of
imports for which they can be exchanged, show steady growth throughout
the Dutch disease period of 1972–78 (see the first three columns in table
6.3). The 1975 dip in export earnings is due to a recession in the industrial

Table 6.3   Performance of Nonoil NonLNG Exports (1974 = 100)

	Physical Volume	U.S. Dollars	Foreign Purchasing Power	Domestic Purchasing Power
1969	NA	28.6	52.2	51.6
1970	NA	33.6	58.5	60.1
1971	73.9	36.0	59.4	66.9
1972	83.4	40.0	60.2	73.7
1973	96.3	73.2	91.1	103.2
1974	100.0	100.0	100.0	100.0
1975	99.6	82.6	74.2	69.5
1976	111.9	115.2	103.8	80.8
1977	121.0	159.7	133.0	100.9
1978	118.0	166.4	123.0	103.6
1979	160.0	253.7	162.4	184.6
1980	144.5	276.4	155.9	170.8

Memo item: Average annual growth rate of nonoil exports in 1973–78 period. Exports in U.S. dollars.

	Indonesia	Malaysia	Thailand	South Korea	Hong Kong	Singapore
Growth rate (%)	15.5	32.3	19.9	30.6	19.0	20.0

Note: Physical volume from deflating rupiah value series by nonoil export price index. Foreign purchasing
power from deflating U.S. dollar value series by export unit value of industrial countries. Local purchasing
power from deflating rupiah value series by Indonesian CPI. The CPI contains prices of imported
consumption goods in its construction.

NA = not available.

countries rather than to a fall in domestic production. The fact that the value indices of columns 1, 2, and 3 went up in 1979 and 1980 only shows that a devaluation is effective in increasing supply rather than that there was stagnation in the nonoil export sector.

The production disincentive faced by the nonoil export industries is clearly seen only when one measures the amount of local purchasing power which their exports are able to command (see column 4 of table 6.3). Even though the nonoil exports were bringing in increasing amounts of foreign goods, the steady real appreciation of the exchange rate meant that the nonoil export industries were not being paid a greater number of baskets containing the mix of goods typically consumed by Indonesians. The first three measures show that total export earnings in 1976 and 1977 were at unprecedented heights, whereas the fourth measure puts the 1976 and 1977 earnings below that of 1973. In terms of foreign purchasing power (column 3), the nonoil export industries increased their revenues by 32 percent between 1973 and 1978, but their revenues were unchanged if measured in local purchasing power.

Another indicator that the Indonesian tradables sector was suffering from the Dutch disease is its poor growth performance compared to Malaysia and Thailand, which exported similar products (see memo item in table 6.3). The respective annual growth rates of nonoil exports over the 1973–78 period for Indonesia, Malaysia, and Thailand were 16 percent, 32 percent, and 20 percent, respectively. The most telling comparison is with Malaysia, which had an oil boom like Indonesia and which also kept its currency fixed (almost) to the dollar. The big difference was that the average annual inflation rate for Malaysia was 7.5 percent as against Indonesia's 21.6 percent.

Table 6.4 gives the prices of the five largest agricultural exports, measured in different ways. Other than the price of coffee, the other agricultural prices move more or less in tandem. Again, because of real exchange rate appreciation, the foreign purchasing power measures (item a) of palm oil, rubber, log, and plywood prices gave a less bleak picture of the 1974–78 period than the local purchasing power measure (item b). The average fall in prices was 12 percent by the first measure, but 29 percent by the second measure. Local purchasing power is the relevant measure for assessing the degree of profit squeeze on the smallholders.

To smooth out individual price deviations, as in the case of coffee prices, in table 6.4, aggregate price indices were constructed to study overall movements in the ratio of prices of tradables to prices of nontradables, PT/PN (see table 6.5). Two proxies for the ratio were obtained by (1) normalizing the output price indices of several sectors by the CPI and (2) normalizing the sectoral prices by the housing component of the CPI.[8] Since housing cost is a more direct proxy for nontradables, we would expect the second ratio to move more than the first.

Table 6.4   **Commodity Price Indices (1974 = 100)**

	Coffee	Palm Oil	Rubber	Logs	Plywood
(a) In U.S. dollars					
1969	56.7	28.0	68.0	47.7	55.3
1970	74.4	42.9	57.1	52.9	67.5
1971	65.7	43.4	43.6	53.1	53.7
1972	74.2	36.9	41.3	49.8	63.4
1973	91.5	47.8	83.3	83.5	124.3
1974	100.0	100.0	100.0	100.0	100.0
1975	106.7	94.6	75.3	82.8	79.8
1976	208.9	71.3	102.0	112.8	96.7
1977	337.1	102.0	110.3	110.1	105.8
1978	228.1	106.3	131.0	112.3	124.1
1979	249.4	118.7	170.3	197.0	171.9
1980	221.8	105.8	194.5	236.7	179.3
(b) In terms of real exports from industrial countries					
1969	103.5	51.1	124.1	87.1	100.9
1970	129.4	74.7	99.4	92.2	117.5
1971	108.4	71.6	71.9	87.5	88.6
1972	111.6	55.5	62.2	74.8	95.4
1973	113.9	59.5	103.7	103.9	154.7
1974	100.0	100.0	100.0	100.0	100.0
1975	95.8	84.9	67.6	74.4	71.6
1976	188.2	64.2	91.9	101.7	87.1
1977	280.9	85.0	91.9	91.8	88.1
1978	168.6	78.6	96.8	83.0	91.7
1979	159.7	76.0	109.1	126.1	110.0
1980	125.1	59.7	109.7	133.5	101.1
(c) In terms of baskets of domestically consumed goods (real rupiah prices as given by CPI)					
1969	102.3	50.5	122.7	86.2	99.7
1970	133.0	76.7	102.1	94.7	120.6
1971	122.0	80.6	81.0	98.5	99.7
1972	136.7	67.9	76.1	91.7	116.9
1973	129.0	67.4	117.5	117.7	175.2
1974	100.0	100.0	100.0	100.0	100.0
1975	89.8	79.6	63.4	69.7	67.1
1976	146.6	50.0	71.6	79.2	67.8
1977	213.1	64.5	69.7	69.6	66.9
1978	134.4	62.6	77.2	66.2	73.1
1979	181.5	86.4	123.9	143.3	125.0
1980	137.1	65.4	120.2	146.2	110.8

In our opinion, the most reliable indicators of PT/PN are the normalized wholesale price indices of imports and of nonoil exports. This is because:

1. Beginning in 1974, some segments of the manufacturing sector started receiving quantitative restrictions on imports to protect domestic industries hurt by the real appreciation and to promote import substitution. Goods sheltered by quantitative restrictions are effectively nontradables from the analytical viewpoint. This is because imports cannot enter, regardless of the spread between domestic and international

prices. With a given quota, prices of the domestically produced substitutes are insulated from international price movements and move only in response to changes in domestic demand and cost conditions.[9]

2. Rice is a very large portion of domestic agricultural output, and its price has been deliberately set to increase slightly more than CPI movements in order to promote the goal of self-sufficiency in rice. Prices of a number of other food crops such as corn, soybean, and sugar are also protected from external competition. This means that tree crops are the main tradable component of the agricultural sector.

Part (a) of table 6.5 shows that, except for agriculture, wholesale prices normalized on the CPI show a downward trend from 1973 to 1978, indicating pressure on producers of tradables to shift to nontradables. We suspect that it is for the reasons given above that the production incentive in the manufacturing sector fell less than in the general tradables sectors. Judging from the normalized export and import indices, the incentive to produce tradable as against the general basket of consumption goods fell 22 to 27 percent between 1973 and 1978.[10]

When prices were normalized by the nontradable price variable, housing cost, *all* series showed a downward trend (see part b of table 6.5). Again, the differences in the decline of the series, PT/PN, reflect the fact that the food component of agriculture is essentially a nontradable because of the self-sufficiency goals, and that the manufacturing sector has been receiving increasing quota protection over the period. In this direct measure of PT/PN, the production disincentive increased by about 26 percent in the 1973–78 interval.[11]

Table 6.5   **Indicators of Tradable-Nontradable Price Ratio, PT/PN (1974 = 100)**

Wholesale Prices	1971	1972	1973	1974	1975	1976	1977	1978[a]	1979	1980
(a) Relative to Jakarta CPI										
Imports	105.9	111.1	107.0	100.0	91.6	81.8	76.7	78.3	87.0	84.8
Exports, nonpetroleum	90.2	88.9	107.0	100.0	69.7	72.0	83.0	84.3	110.2	112.9
Agriculture	90.2	100.0	102.8	100.0	98.3	102.8	113.2	116.9	120.8	127.7
Manufacturing	103.9	107.4	114.1	100.0	89.9	88.1	88.1	92.2	94.9	97.7
(b) Relative to housing component in Jakarta CPI										
Imports	75.0	82.2	91.6	100.0	87.2	74.5	66.3	65.3	73.7	70.5
Exports, nonpetroleum	63.9	65.8	91.6	100.0	66.4	65.6	71.7	70.4	93.3	93.8
Agriculture	63.9	74.0	88.0	100.0	93.6	93.6	97.8	97.5	102.4	106.2
Manufacturing	73.6	79.5	97.6	100.0	85.6	80.3	76.1	76.9	80.4	81.2
(c) Morgan Guaranty's competitiveness measure	114.1	127.1	120.3	100.0	87.3	74.8	74.2	79.6	111.3	101.1

Note: Part (a) and (b) are calculated from table 3 in Warr (1986), but some of our calculated numbers differ from the calculations in his table 4. The series in this table and those in table 6.7 are not comparable because the definition of wholesale price index changed over the two periods. The competitiveness measure is from inverting the Morgan Guaranty real exchange rate.

[a]January to October 1978.

6.5   Effects of the 1978 Devaluation

The 50 percent devaluation caused a much bigger jump in the normalized nonoil export prices than in the normalized import prices; on average, a 24 percentage point jump in the former versus 8 percentage points in the latter. The minor improvements in the normalized manufacturing and agricultural prices may reflect the significant use of quantitative restrictions (QRs) which have pushed these goods closer to the nontradables category. The 24 percentage point improvement in relative prices for the tradable sector may not be an exaggeration because the rise in the Morgan Guaranty measure of competitiveness was even more substantial—32 percentage points.[12]

The speed and size of the response of nonoil, nonLNG exports were extremely impressive.[13] The devaluation happened at the end of 1978, and the expansion of nonoil exports in 1979 was considerable according to all four of the earning measures used in table 6.3. Export volume went up by 36 percent in one year, raising dollar earnings by 52 percent. Measured in units of exports from industrial countries, the value growth from the 1978 level was 32 percent in 1979 and 27 percent in 1980. This growth in foreign purchasing power translated into domestic purchasing power increases of 78 percent in 1979 and 65 percent in 1980. The nonoil export response caused the nongold reserves of the central bank to swell from twenty weeks of imports at the end of 1978 to twenty-six weeks in the third quarter of 1979, just before the OPEC-2 October price increase further boosted official reserves. What makes this export achievement particularly notable is that 1979 was the beginning of the slide into the deep recession of 1982. The real GDP of the industrial countries grew only 3 percent in 1979 and 0.6 percent in 1980, compared to a 1976–78 average of 4.4 percent.

While the big response by nonoil exports may not be surprising given the large devaluation, what may not have been expected at the outset was the speed of the response. This is because the bulk of Indonesian nonoil exports is agricultural raw materials and minerals, with manufactured exports averaging only 6.7 percent of nonoil exports in the 1972–78 period.[14] Since the supply of both of these primary commodities is typically assumed to be inelastic in the short run, either because of their long gestation periods (tree crops) or their heavy capital-intensive nature (minerals), the 36 percent expansion in the physical volume of nonoil exports in 1979 was bewildering.

The quick response is proof of the Dutch disease. The mounting severity of the Dutch disease since 1974 caused an increase in excess capacity in the traditional export industries. Small producers of tree crops were spending more and more of their time in nontradable activities as the real prices of their agricultural products sank with the maintenance of a constant nominal exchange rate in the face of big domestic price increases. Another source of the excess capacity in the agricultural raw materials sector was that, given the low real prices, producers were not fully exploiting the now matured

trees planted in the early 1970s in the wake of the stabilization and rehabilitation of the economy. Hence, production was easily increased when PT/PN was improved by the 50 percent devaluation.

The above point is very well brought out by table 6.6 which shows the value of nonoil exports before and after the November 1978 devaluation. Total nonoil exports, measured in dollars, went up by 54 percent in fiscal 1979.[15] The rates of increase for the seven biggest nonoil export items were all at the two-digit level: timber, 91 percent; rubber, 42 percent; palm oil, 16 percent; coffee, 41 percent; animals and animal products, 19 percent; and manufactured goods, 82 percent. The sizable expansion of the tree crop

Table 6.6   Nonoil, NonLNG Exports of Indonesia

Product	1977/78	1978/79	1979/80
(a) In millions of U.S. dollars			
Timber	943.0	1,130.0	2,166.0
Rubber	608.0	774.0	1,101.0
Palm oil	202.0	221.0	257.0
Coffee	626.0	508.0	715.0
Tea	120.0	98.0	91.0
Tobacco	59.0	58.0	60.0
Pepper	62.0	66.0	46.0
Palm kernel	5.0	2.0	12.0
Copra cake	33.0	34.0	65.0
Tapioca	13.0	28.0	59.0
Other foodstuffs	48.0	65.0	79.0
Animals and animal products	179.0	214.0	255.0
Tin	253.0	324.0	388.0
Copper	74.0	64.0	95.0
Other minerals	36.0	49.0	126.0
Manufactured products	245.0	361.0	656.0
Total value of nonoil exports	3,506.0	3,996.0	6,171.0
(b) Rate of change from preceding year (%)			
Timber		19.8	91.7
Rubber		27.3	42.2
Palm oil		9.4	16.3
Coffee		− 18.8	40.7
Tea		− 18.3	− 7.1
Tobacco		− 1.7	3.4
Pepper		6.5	− 30.3
Palm kernel		− 60.0	500.0
Copra cake		3.0	91.2
Tapioca		115.4	110.7
Other foodstuffs		35.4	21.5
Animals and animal products		19.6	19.2
Tin		28.1	19.8
Copper		− 13.5	48.4
Other minerals		36.1	157.1
Manufactured products		47.3	81.7
Total value of nonoil products		14.0	54.4
Memo item: Manufactured exports as proportion			
of total nonoil exports	7.0	9.0	10.6

exports—rubber, palm oil, and coffee—and tin exports testified eloquently to the presence of excess production capacity in these industries prior to 1979. The large reaction of manufactured exports was particularly gratifying to the technocrats who had advocated the devaluation because they viewed the labor-intensive manufactured industries as a crucial sector for Indonesian industrialization and the creation of employment.[16]

6.6   The March 1983 Devaluation

Management of the exchange rate after the 1978 devaluation was much more flexible; the rupiah glided gently downward against a basket of currencies to compensate for the higher inflation rate in Indonesia. The OPEC-2 shock in November 1979, however, unleashed external and internal forces which led ultimately to the 38 percent rupiah devaluation in March 1983. Specifically, the doubling of oil prices provoked the industrial countries to tighten their monetary policies to ward off the cost-push inflation, and the result was three years of negligible growth with its nadir in 1982 when the world experienced its deepest recession since the Great Depression.

At the same time, the great inflow of oil revenue caused the Indonesian government to augment its investment spending as dictated by the balanced budget rule. Because of the primitive state of domestic financial markets, ruling out the use of open market operations by the central bank, the conversion of the dollar-denominated oil revenue by the government into rupiah expenditure led to an explosion of the money supply. As in the aftermath of the OPEC-1 shock, Bank Indonesia temporarily lost control of the money supply. Reserve money grew by 28 percent in 1979 and 40 percent in 1980. The result was that the expected one-time price level increase due to the November 1978 devaluation was given new momentum; the inflation rate was 18.5 percent in 1979 and 12.2 percent in 1980. The inflation rate would have been higher if stagnation in the industrial countries had not exerted a moderating effect on prices via lower import prices.

The internal shock of high inflation, which appreciated the real exchange rate, and the external shock of low OECD growth caused the balance of payments to deteriorate. The slowdown of the OECD economies shifted the demand for Indonesian exports downward, and the real exchange rate appreciation decreased the supply of nonoil exports. The import price index normalized by housing cost went from 74 to 66 in the 1979–82 period, while the Morgan Guaranty competitiveness index declined from 111 to 80; a fall of 10 and 20 percent, respectively (see table 6.7). The consequence of these internal and external shocks was that both the volume and real domestic value of nonoil exports in 1982 were half of their 1979 level. The current account deficit was a record 6 percent of GDP, with reserves falling to ten weeks of imports.

Table 6.7   Background to Devaluations of 1983 and 1986

	1979	1980	1981	1982	1983	1984	1985	1986
(a) General economic conditions								
Income growth in industrial								
nations (%)	3.4	1.3	1.4	−0.4	2.7	4.7	3.0	2.4
Real price of oil in foreign								
purchasing power (1980 = 100)	67.7	100.0	119.2	124.1	111.6	109.1	104.1	59.1
Indonesian inflation rate (%)	20.6	18.5	12.2	9.5	11.8	10.5	4.7	5.9
Indonesian growth rate (%)	6.3	9.9	7.9	2.2	4.2	6.6	1.1	2.4
(b) Balance-of-payments situation								
Merchandise exports to GDP (%)	27.5	27.9	25.2	20.8	23.1	24.3	21.4	21.4
Current account balance to GDP (%)	1.9	4.0	−0.7	−5.9	−7.8	−2.5	−2.1	−4.3
Reserves to imports ratio (weeks)	29.3	25.9	19.6	9.7	11.8	17.9	20.5	23.0
External long-term public								
debt service to exports (%)	13.5	7.9	8.2	10.6	12.8	14.7	20.1	29.3
(c) Nonoil export sector (1974 = 100)								
Import price deflated by housing cost	65.2	62.8	63.0	56.9	63.2	59.8	58.2	57.7
Export price deflated by housing cost	99.0	101.0	91.1	80.5	105.9	102.9	98.4	98.9
Competitiveness à la Morgan Guaranty	111.3	101.1	89.0	79.5	98.4	91.8	92.7	109.7
In physical volume	160.0	144.5	90.2	80.3	100.9	115.5	129.2	142.7
In local purchasing power	184.6	170.8	111.8	93.5	148.1	175.0	188.5	222.4
In foreign purchasing power	162.4	155.9	118.1	107.3	142.6	169.3	177.0	168.2

Note: PT/PN proxies for 1983 are for post-March devaluation and for 1986 are pre-September devaluation. PT/PN proxies here are not comparable to those in table 6.5 because of changes in the definition of price indices. This is why the 1979 and 1980 figures in this table are different from table 6.5.

The balance-of-payments picture worsened in the first quarter of 1983. Imports continued to grow with no sign of export recovery, and capital outflow started accelerating. The category of errors and omissions, into which the official balance-of-payments account put all private portfolio capital flows, soared from −$0.6 million in 1979 to over −$2.0 billion annually during 1980–82. The weak export earning together with this avalanche of capital outflow caused total nongold reserves to fall to 5.3 weeks of imports by the end of the first quarter of 1983.

The grim balance-of-payments picture at that point was definitely the reason for the 38 percent devaluation. An economic stimulus coming at the time when the economy was growing at 2.2 percent was an added incentive to devalue. Because Mexico was unable to meet its debt service in August 1982 and two other borrowers, Argentina and Brazil, were on the brink of a debt crisis, it was prudent for Indonesia to take some preventive measures, especially since the price of oil was moving downward. It seems likely that the external debt did not play more than a cautionary role in the government's decision to devalue in 1983. Although the external public debt-service ratio rose from 8 percent in 1980 to 11 percent in 1982, it was still well below the 1981 (pre-crisis) Mexican debt-service ratio of 28 percent.[17]

The March 1983 devaluation restored PT/PN back to the level set by the devaluation of November 1978. The response of the nonoil export sector was impressive, as in the previous devaluation—exports expanded 26 percent in physical volume and 58 percent in local purchasing power. The reason the 1983 nonoil export levels (in real terms) were significantly lower than the 1979 levels, even though the value of the real exchange rate was the same in both instances, is that foreign demand was much lower in 1983 than in 1979. Real GDP of industrial countries grew 2.7 percent in 1983, compared to 3.4 percent in 1979. Nevertheless, the increase in nonoil exports was enough to shrink the current account deficit to 2.5 percent of GDP in 1984.

Manufacturing exports grew especially rapidly, jumping from $850 million in fiscal 1982 to $1,480 million in fiscal 1983, and then to $2,166 million in fiscal 1984 (see table 6.8). It is noteworthy that a greater variety of manufactured goods were being exported because of the favorable PT/PN. Manufactured goods in the "others" category shot up by 300 percent in real terms in just two years. This reaction of the manufacturing sector strongly indicates that export-oriented industrialization is a real possibility as long as favorable relative prices are maintained through appropriate exchange rate and trade policies.

It must be emphasized that the government supported the 1983 exchange rate devaluation with conservative macroeconomic policies. Both monetary and fiscal policies were tightened. The latter was done by massive postponement of capital-intensive (hence, import-intensive) projects and by increasing tax revenue through streamlining a cumbersome tax system. The government budget deficit went from Rp 13 billion in 1982 to Rp 10 billion in 1983, and then to Rp 0.5 billion in 1984.[18] The conservative macroeconomic policies succeeded in keeping inflation to just a shade over 10 percent in 1983 and 1984, hence preventing a fast reversal of the real depreciation of the exchange rate.

The government may also have sought to improve the trade balance directly by rapidly expanding the list of import items subject to quotas. While imposition of quotas may be due largely to the efforts of infant industries advocates and rent-seekers, the timing of the flood of quantitative

Table 6.8   **The Response of the Manufacturing Sector to the March 1983 Devaluation (in millions of dollars)**

	1982/83	1983/84	1984/85
Plywood	320	580	697
Textiles and clothing	180	360	519
Electrical appliances (e.g., T.V., semiconductor, transistor)	110	130	135
Others (e.g., fertilizer, cement, iron and steel, floor coverings)	240	410	815
Total manufactured exports	850	1,480	2,166

Source: World Bank (1985, 20; 1986, 91; 1987a, 16).

restrictions seems to suggest a role for balance-of-payments considerations as of November 1982. The increased protectionism may help the balance of payments in the short run, but the quota form of protectionism (for reasons given in section 6.8 below) is counterproductive in the medium and long run. Quantitative restrictions could very well have contributed substantially to the need for another devaluation in September 1986.

6.7 The September 1986 Devaluation

The world economy showed no signs of returning to sustained economic growth after the deep 1982 recession. There was a spurt of activity in 1984 (see table 6.7) which was normal after such a deep recession and was helped along by the large U.S. budget deficits. But U.S. budget deficits could not keep on widening indefinitely in order to provide the same stimulus. In 1985 the growth rate in the industrial countries slowed down to 3.0 percent. After the middle of 1986 it was clear that immediate growth prospects were lower than anticipated. The IMF revised its growth rate projections for industrial countries downward, from 3.0 to 2.7 percent for 1986, and from 3.2 to 3.1 percent for 1987 (IMF 1986b, 1986c). The actual 1986 growth rate turned out to be even lower than the midyear forecast; it was 2.4 percent.[19]

For Indonesia, the slow global economic recovery translated directly into uncharacteristically low oil and commodity prices. The average oil price in fiscal 1985 was $25 per barrel, and it fell to $13 per barrel in fiscal 1986.[20] The nonoil terms of trade also turned harshly against Indonesia with the result that even though nonoil exports increased by 10 percent in physical volume, their value decreased by 5 percent in terms of foreign purchasing power. Despite the adoption of stringent macroeconomic policies and the steady floating down of the exchange rate from 970 rupiahs/dollar in 1983:1Q to 1,131 rupiahs/dollar in 1986:2Q, the current account deficit doubled to 4.3 percent of GDP from 2.1 percent.

Added to the balance-of-payments problems of 1986 was a quickening of the rise in the external public (medium- and long-term) debt-service ratio since 1984. The 1986 debt-service ratio stood at 29 percent, the same level as the Mexican debt-service ratio in 1981. The primary factors behind this drastic rise were the export collapse, which decreased the denominator, and the "uncontrollable" increased debt payments, which increased the numerator. The increased debt-service payments were termed "uncontrollable" because since less than 30 percent of Indonesia's external debt is denominated in U.S. dollars, the drastic drop of the dollar against the other currencies accounted for more than 70 percent of the $1.1 billion increase in annual debt service over the 1984–86 period (World Bank 1987a). Given that Japan is Indonesia' biggest creditor (36 percent of debt), as well as its biggest trade partner, the 29 percent dollar depreciation against the yen in 1986 put Indonesia in the uncomfortable position of receiving dollars for its

chief export, oil, and paying yen for its imports and for a third of its debt service.

With the worsening of the trade balance, the growing shadow of a debt crisis, and the slowing down of economic activities, the September 1986 devaluation of 45 percent against the dollar was the single most effective step Indonesia could have taken to simultaneously improve its capacity to earn foreign exchange and stimulate its economy.

6.8   Relative Prices and the 1986 Devaluation

While it is clear that negative external demand shock had a role in worsening the balance of payments, we want to point out that there were also internal developments over this period which caused substantial movements in relative prices unfavorable to the tradable sector. Specifically, the widespread use of QRs in the 1980s depressed the output/input price ratio faced by the tradable sector and caused the supply of nonoil exports to fall. Our point is that the introduction of QRs on the imported inputs of the tradables sector transfers part of the profits previously received by the producers of tradables to the holders of the input quota. QRs on inputs and real exchange rate appreciation are alike in that they both cause a profit squeeze in the tradables sector.[21]

The use of QRs has a long history. (QRs take the form of either import licenses or quotas.) The first use of QRs in the Soeharto regime was in 1970, and by the end of 1971 twenty-four items were under this form of protection. The use of nontariff barriers increased significantly throughout the 1970s, partly in response to the Dutch disease squeeze on the profit margins of the import-substituting industries.[22] In November 1982, when the balance-of-payments situation looked precarious, the use of QRs accelerated.[23] By 1985 QRs were undoubtedly the dominant form of protection in Indonesia.

The pervasiveness of QRs is very well shown in table 6.9. Of the 5,229 items imported in 1985, 1,484 required import licenses and 296 were under quotas. The import licenses were usually given to only two or three traders or to the few firms producing the competing goods domestically. The method of license issuance effectively conferred monopoly status on the license recipient. Quotas spanned the whole spectrum from zero to a discretionary quantity decided by a bureaucrat at the time the import application was submitted. License restrictions covered 30 percent of total import value. The range of activities protected by import licenses accounted for 32 percent of total domestic value added (excluding construction and services).[24] If the petroleum sector, which requires no protection, is also excluded, then the coverage is 53 percent of total domestic value added.

The types of goods under QRs is very diverse, ranging from basic inputs to consumption goods. Basic inputs under monopoly import licenses include cold-rolled steel sheets, key chemicals for making plastics, and tin plate.[25] It

Table 6.9   **Import Licensing in 1985**

	Agriculture	Minerals	Manufacturing	Total
Number of CCCN items				
Total	1,024	139	4,066	5,229
Under license	122	2	1,360	1,484
Under quota	64	1	231	296
Import value[a]				
Total	727	1,451	8,082	8,987
Under license	170	1	2,539	2,710
Share of value added[b]				
In sector	40.6	42.4	17.0	100.0
Under license	21.4	.1	10.3	31.8

Source: Central Bureau of Statistics, Indonesia, and World Bank staff estimates.

Note: CCCN = Customs Cooperation Council Nomenclature.

[a]In millions of U.S. dollars. Based on CBS data for 1985, which vary from balance of payments estimates for 1985/86

[b]In percentages. Based on the 1980 input-output table. Excludes construction and services. Due to differences in classification, these numbers may vary from national account estimates.

is clear that protectionism is not always extended for infant industry reasons; for example, there is no domestic producer of cold-rolled steel. In the case of plastic inputs (where there is one domestic producer), the monopoly importer imposed an administrative fee for each raw material which amounted to about 18 percent of its value, resulting in a 30 to 40 percent rise in costs to the end users.[26]

The implication of this microeconomic distortion for exchange rate management is profound. The intrusion of this distortion since late 1982 and its quick metastasis across the tradable sector renders invalid drawing conclusions from the movements of the macroecnomic proxies for PT/PN, as we did for table 6.5. This is because the introduction of quotas on inputs to the tradables sector reduces the sector's production incentive for a given PT/PN. Output prices of tradables are set by international competition, while output prices of nontradables (which are generally very labor-intensive) are set by the domestic cost structure whose level is determined by, primarily, domestic wages on the supply side and domestic macro conditions on the demand side. Hence, the introduction of a quota on an imported input to the tradables sector will reduce the profitability of the tradable sector without any change in the proxies for PT/PN. The fact that in table 6.7 the two proxies for PT/PN in predevaluation 1986 are at least as favorable as in postdevaluation 1979 does not imply that the production incentive (measured in terms of local purchasing power) has not worsened if we abstract from demand conditions.

The economic effects of a QR can be modelled by the addition of another cost, henceforth called rent, to the production of the good. The limit of the rent is determined chiefly by the shape of the demand curve for the output

and by the cost of smuggling.[27] The existence of this rent imposes a
potential check on the ability of devaluation to restore international
competitiveness. This is because the effectiveness of a devaluation in
boosting production of tradables depends crucially on its ability to raise the
domestic output price without a corresponding rise in the domestic cost of
nontraded domestic inputs. As a first approximation, a devaluation works by
increasing the real profits of the tradable sector by cutting the real wage
(which is more easily achieved if austere macro policies are undertaken
simultaneously).

We can think of the QR-introduced rent as a payment for a nontradable
input service. Since there is no competitive determination if this rent, its
level is at the discretion of the monopoly import license holder. How the
license holder reacts to a devaluation determines the effectiveness of the
devaluation in boosting production of tradables. If the license holder keeps
the rent constant, either in nominal terms or in local purchasing power, then
production of tradables will increase as long as the costs of other nontraded
inputs fall in terms of local purchasing power. However, if the license holder
increases his rent so that the loss of other nontraded inputs is entirely
transferred to him, then the production level will remain unchanged.

As a practical matter, it may be reasonable to assume that the license
holder is usually not able to scoop all of the "released payments," and hence
devaluation would in most cases increase the output of tradables. This means
that a devaluation in the presence of QRs will have to be larger than one
undertaken in their absence in order to achieve the same output response. We
can say that the August 1986 real exchange rate was overvalued in the sense
that the introduction of QRs caused a drop in the supply of nonoil
exportables which a devaluation would be able to offset.

The point we want to emphasize is that although the Morgan Guaranty
competitiveness index in predevaluation 1986 shows almost the same value
as in postdevaluation 1979 (110 versus 111), it does not indicate that the
August 1986 exchange rate was not overvalued. In order to have the 1986
nonoil export supply schedule in the same position within the familiar
Marshallian price-quantity space as in 1979, a devaluation was clearly
warranted in light of the shrunken gap between output and input prices.[28] It
is of course an empirical question how much the additional nonoil export
earnings would have been in the absence of QRs, especially in comparison to
the fall in oil export earnings. The current account deficit would still have
widened in 1986, but it may not have doubled as it did.[29]