

## Chapter 6 The Prospect of and Challenges facing the Recovery of the Real Sectors

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# Chapter 6

## The Prospect of and Challenges Facing the Recovery of the Real Sectors

The term “real sectors” is often used to refer to those sectors which produce tangible goods, in distinction from the banking sector or sometimes from the service sector. Little attention seems not to have been focused on the impact of the economic crisis on the real sectors, compared to the keen attention of the media riveted on the very drastic restructuring of the banking sector, which has been underway since the outbreak of the currency crisis. However, even in 1998, amidst the economic crisis, primary and secondary industries together accounted for 63.4% of Indonesia’s GDP, with the manufacturing sector producing 26.2% of GDP, agriculture, forestry, and fisheries 18.8%, mining 12.9%, and construction 5.4%.<sup>1</sup> In terms of the size of work force, too, these industries in the same year absorbed 61.1% of total employment, with manufacturing employing 11.3%, construction 4.0%, and mining 0.8%. In face of this fact, the call for prompting a recovery of the real sectors has been growing louder, especially since around the time of the presidential election in October 1999. The purpose of this chapter is to examine how manufacturing industries, agriculture, forestry and fisheries have been affected by fluctuations in the rupiah’s exchange rate and thereby view the prospect of the

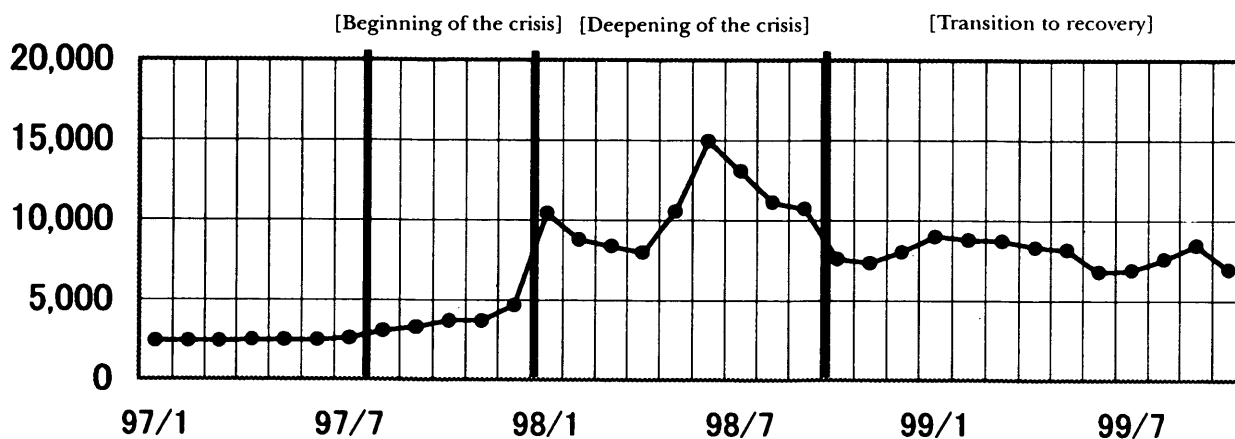
outlook for Indonesian economic recovery in the wake of the establishment of the Abdurrahman Wahid administration and on challenges that need to be overcome.

### 6.1 The Analytical Framework and the Periodization of the Economic Crisis

The currency crisis that erupted in July 1997 escalated, through a sharp plunge in the rupiah’s value, into a full-blown economic crisis, producing far-reaching effects on various sectors of the economy. This chapter begins by having a macroscopic overview of how the rupiah’s fluctuations affected companies’ costs and domestic and export demand. It then traces, from a more microscopic perspective, the movements of production activities in various industrial sectors since the eruption of the currency crisis.

Throughout this chapter the economic crisis is broken down into three phases based on the fluctuations in the rupiah’s value (Figure 6-1). Phase 1, or the “beginning of the economic crisis,” which began in the third quarter of 1997 when the currency crisis erupted and continued until the fourth quarter of 1997, during which time the rupiah’s

Figure 6-1 The Bank of Indonesia’s End of Month Exchange Rate of the Rupiah (Rp/\$)



Sources: Compiled by the author based on Bank Indonesia, *Statistik Ekonomi keuangan Indonesia* (Indonesian Financial Statistics) and the newspaper *Kompas*.

value gradually decrease from 2,400 to 6,000 rupiahs to the dollar.

Phase 2 extends from the first quarter of 1998, when the exchange rate against the dollar tumbled beyond the 10,000 rupiah mark, to the third quarter of 1998. During this period, the currency's value dropped to the level of 16,000 rupiahs to the dollar twice, first in January 1998 and then in June 1998.<sup>2</sup> On the other hand, however, in the period from February to April, the exchange rate fared relatively better fluctuating between 7,000 and 10,000 rupiahs because of a tentative moratorium on the servicing of the private sector's external debts and other factors. Thus, the exchange rate fluctuated in a relatively wide band during phase 2. And yet, on the whole, the economic crisis had worsened to its severest proportions during this phase, in the sense that the exchange rate remained above 10,000 rupiahs for most of the time. At the same time, social and political unrest continued and the Soeharto administration, after 32 years in power, collapsed in May 1998. Consequently, economic activities remained in a slump. Phase 2, therefore, can be regarded as the period of the "deepening of the economic crisis."

Phase 3 covers the period from the fourth quarter of 1998 to October 1999. As of October 6, 1998 when the rupiah's exchange rate against the dollar rebounded above the 10,000 rupiah mark, it basically remained between 6,000 and 10,000 rupiahs. Throughout this period, the size of transactions between the rupiah and foreign currencies on the foreign exchange market remained small because of the after-effects of the hampered economic activities during the preceding period of the deepening of the economic crisis. Furthermore, official capital inflow in foreign currencies had the effect of stimulating demand for the rupiah in order to convert these foreign currencies into domestic currency and thus helped stabilize the rupiah's value. This in turn had the effect of arresting the inflationary trend and gradually lowering interest rates. At the same time, special procurement demand related to the general elections and other factors also helped the economy more or less bottom out and then pick up modestly. Moreover, in June 1999, immediately after the general elections, when the victory of the Indonesian Democratic Party of Struggle (PDI-P) became certain, the rupiah's value temporarily soared to between 6,000 and 7,000 rupiahs. When, however, IMF's loans

were temporarily frozen in August and subsequent months because of the Bank Bali scandal and the East Timor issue, the exchange rate again worsened to between 8,000 and 9,000 rupiahs, clouding the prospect of Indonesia's economic recovery. In light of these developments which are characteristic of the run-up to a recovery phase, Phase 3 is termed here as the "period of transition to recovery" or "period of modest recovery."

### *6.2 Pressures of Increased Import Prices, Intermediary Goods and Increased Debt Servicing Costs*

This section will examine the effects of the rupiah's exchange rate fluctuations on corporate expenditures. To begin with, a decline in the rupiah's exchange value does not produce much direct impact on the performance of those firms which depend exclusively on domestically produced raw materials and components and indigenous labor. However, for those firms which depend significantly on imported raw materials and components and other intermediary goods, a decrease in the rupiah's value translates directly into increased costs. In other words, the effects of a worsening of the rupiah on the performance of firms vary depending on the extent of their dependence on imported intermediary goods. Furthermore, a decrease in the rupiah's value produces only small effects on labor costs of firms which cater mainly to the domestic market but greatly benefits export-oriented firms by making their labor costs relatively more competitive than those of their foreign competitors.

Table 6-1 compares estimated amounts of imported intermediary goods, workers' wages, and other inputs as percentages of the total inputs of main industrial sectors, calculated with the use of the input-output table for 1995, the year before the outbreak of the currency crisis.<sup>3</sup> In the case of primary industry, to begin with, the ratio of operating surplus to the total input is conspicuously large. This is due to the fact that, except for some agricultural estates that employ workers and are trying to expand their operations, many of the operations in the agriculture and fisheries sectors are undertaken by the self-employed, and also that in the oil and gas sector revenues from mining rights account for a large percentage of the sector's revenues. As for inputs, domestically produced intermediary

**Table 6-1 The Composition of Total Inputs by Industry**

	Primary industry	Manufacturing industry	Construction industry	Tertiary industry
Domestically produced intermediary goods	191.2%	51.40%	57.29%	31.62%
Imported intermediary goods	1.09%	12.77%	8.22%	3.17%
Wage and salary	14.58%	9.77%	18.14%	23.26%
Operating surplus	60.44%	19.06%	11.98%	33.02%
Other inputs	4.77%	7.00%	4.37%	8.92%

Note: "Other inputs" consist of indirect taxes, subsidies, and depreciation of fixed capital.

Source: Compiled by the author on the basis of Badan Pusat Statistik, *Tabel Input-Output Indonesia 1995 Jilid I*.

goods and wages together account for little more than 30% of total input while imported intermediary goods account for only 1%.

In the case of manufacturing industries, on the other hand, domestically produced intermediary goods have the largest share of total input, 51.4%. On the other hand, imported intermediary goods' share, 12.8%, is smaller than that of domestically procured intermediary goods but is larger than labor wages' share, 9.8%. The ratio of imported intermediary goods is especially high for such manufacturing industries as fertilizer and pesticide (40.9%), machinery and electric appliances (35.3%),<sup>4</sup> transportation equipment (30.4%), and chemicals (24.3%). The 12.8% share of the cost of imported intermediary goods in the total input of the manufacturing sector as a whole seems to be not so impressively large. But when a simple calculation is made on the assumption that the rupiah's exchange rate suddenly depreciates four-fold, as it actually did from 2,400 to more than 10,000 rupiahs to the dollar, and also that all the other conditions remain unchanged, the cost of imported intermediary goods accounts for as much as 37.0% of total costs. In other words, one can rightly imagine that when the economic crisis was growing serious, manufacturing industries were hard pressed by the soaring cost burden of imported intermediary goods. On the other hand, the burden got much lighter during the period of transition to recovery when the rupiah's exchange rate

fluctuated between 6,000 and 10,000 rupiahs to the dollar.

Turning next to the cost of debt servicing, a decline in the rupiah's value, when looked at from the standpoint of firms borrowing funds in US dollars or other foreign currencies, translates into an increase of debt servicing burden in rupiah. For firms which are exporting all their products and are denominating their exports in foreign currencies, this does not cause much trouble because their export earnings, when converted into rupiah, increase proportionately. However, for firms which cater primarily to the domestic market, their revenues in rupiah cannot cover the expanded costs of debt servicing, seriously squeezing their profit levels. From the standpoint of firms which have borrowed funds to finance their imports of intermediary goods, a depreciation of the rupiah means that their profits are squeezed doubly, both by increased import prices and the increased cost of debt servicing. On the other hand, for small- and medium-sized firms which are denied access to external borrowing and which depend exclusively on the domestic financial market for raising funds in rupiah, a depreciation of the rupiah and the resulting leap in interest rates mean that their costs of fund raising rise seriously, and that, not infrequently, they can be pushed to the brink of financial insolvency.

The means of raising funds by Indonesian firms differs from one firm to the next. However, in view of the fact that since 1987 year-to-year fluctuations in the rupiah's exchange rate remained within a 6% band, and also the fact that in the period from 1995 to 1996 the lending rate charged by private banks in Indonesia on their loans for working capital remained for most of the time between 19 and 21%, while the London Interbank Offered Rate (LIBOR) remained for most of the time between 5 and 7%, not a few firms are reputed to have opted to raise funds in foreign markets without hedging their risks, and sell their products in the domestic market using rupiah as the invoicing currency.<sup>5</sup> This can be supported by the fact that as of December 29, 1997 external debts of the private sector amounted to \$65.6 billion. What is more, this figure as reported by available statistics further increased to \$67.064 billion by June 1999.<sup>6</sup> This suggests that private firms were not yet relieved from the burden of debt servicing costs despite the onset of the stage of transition to recovery. More-

over, suffering from a loss of creditworthiness due to their failure to pay arrears for an extended period, they were still finding it difficult to raise funds. It is also reported that among Japanese-owned offshore firms, quite a few of which before the outbreak of the currency crisis had reputedly been raising funds from abroad without hedging their risks, attempted after the crisis' onset to cope with the situation by invoicing their domestic clients in dollars instead of rupiah.<sup>7</sup>

To sum up the foregoing observations, the primary industrial sectors, including agriculture, with their low dependence on imported intermediary goods, did not suffer much from the fall in the rupiah's value in the form of increased production costs, but rather benefited from it because it made their wage costs comparatively cheaper and more competitive. In contrast, the depreciation of the rupiah's value pressed hard on the production costs of the manufacturing sectors as a whole, though to varying extents depending on the degree of each sector's dependence on imported intermediary goods. On the other hand, several facts should be kept in mind: there are not a few firms, even inclusive of foreign-affiliated ones, which were hit hard by the outbreak of the currency crisis because they had been borrowing heavily from abroad in the pre-crisis era; external debts of the private sector are still expanding and there are still many firms which are not making progress with their debt servicing; and domestic banks still suffering from large amounts of bad loans are not supplying sufficient loans to firms in the real sectors. In light of these realities, firms still seem to have difficulties in raising funds.

### *6.3 The Domestic Market Became Downsized*

Although wages increased amidst the economic slowdown, the rate of wage increase failed to cover the rate of inflation. Table 6-2 shows how weekly wages paid to employees in manufacturing industry changed during the period from early 1997 to the middle of 1999, as measured in terms of industry average and the median wage level, the latter of which represent a most typical wage level earned by workers in the industry, and also measured both on a nominal basis and on a real-term basis (deflated by the current consumer price index). The table also shows how the consumer price index and the interest rate on time deposit changed during

the period from early 1997 to late 1999. It is clear from this table that, although nominal wages continued to increase even after the outbreak of the currency crisis except the average wage level in March 1999, inflation-adjusted real-term wages continued to decrease at least until March 1999. Moreover, given the fact that the officially prescribed minimum wage level was kept unchanged from April 1, 1997 until April 1999, there is no denying that workers' earnings shrank. It should be taken into account, furthermore, that many workers were discharged by manufacturing firms which were faced with a long-term and serious decline in demand; this means that workers' real incomes must have been affected far more seriously than these statistics suggest.

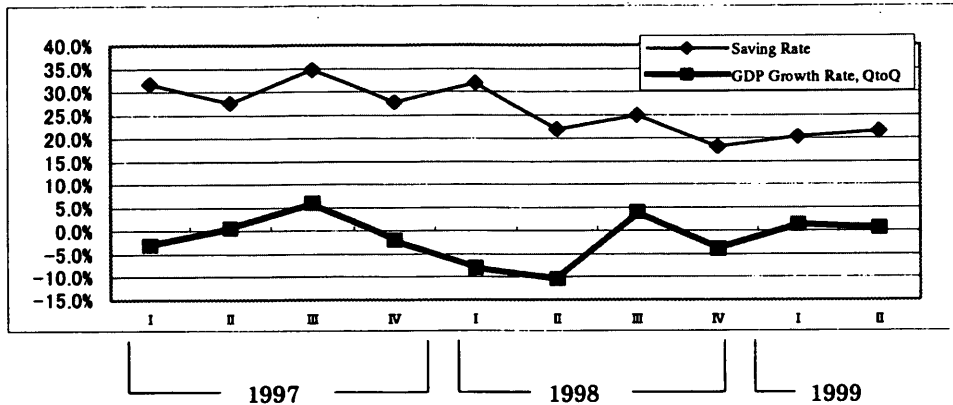
Charted in Figure 6-2 are the rate of increase in real GDP from one quarter to the next and the savings rate as derived from national income statistics. What is especially noteworthy is that a 10.6% decrease in real GDP that took place in the second quarter of 1998 compared with the preceding quarter forced the savings rate to plummet sharply from the pre-crisis level of around 30% down to 21.9%. Although the savings rate temporarily recovered to 24.9% in the third quarter of 1998, it soon dropped to 18.0% in the fourth quarter and remained low thereafter, managing to increase only up to 20.7% by the third quarter of 1999. It is important to note, however, that the decrease in the savings rate has not been consistently accompanied by increased consumption. In fact, in advance of the sharp drop in real GDP in the second quarter of 1998, private consumption in the first quarter of the year decreased by 7.3% from the preceding quarter, continuing to decrease thereafter by 1.0% in the second quarter, and by 6.8% in the third quarter. However, even before the savings rate began to show an upswing, consumption registered a positive growth rate of 4.1% in the fourth quarter of 1998, followed by 1.1, 0.2 and 0.9% increases in the first, second and third quarters of 1999, respectively, thereby entering the period of transition to recovery. This seems to have taken place against the backdrop of the stabilization of consumer prices, that followed an increase of real wages and a decrease in the interest rate through several stages (Table 6-2). Given, in particular, the fact that minimum wages were raised by an average of 16.07% on April 1, 1999,<sup>8</sup> and that prices continued to decrease for seven months in a row since March 1999, there seems no

**Table 6-2 Changes in Weekly Wages (in Rp.1,000), the Consumer Price Index, and Interests on Time Deposits**

	Weekly wage in the manufacturing industry		Real-term wage		Consumer price index	Rate of increase in the consumer price index		Interests on one-month time deposits	
	Average	Median	Average	Median		Over one month earlier	Over the same month one year earlier	National banks	Private banks
<b>1997</b>									
January					101.24	1.0%	5.5%	14.2%	16.8%
February					102.31	1.1%	4.8%	14.2%	16.6%
March	46.9	41.5	45.9	40.6	102.18	-0.1%	5.3%	14.0%	16.3%
April					102.75	0.6%	5.1%	13.8%	16.1%
May					102.95	0.2%	5.2%	13.7%	16.0%
June	50.2	43.8	48.8	42.6	102.77	-0.2%	5.1%	13.6%	15.9%
July					103.45	0.7%	5.1%	13.5%	15.8%
August					104.37	0.9%	5.7%	24.1%	27.6%
September	51.6	45.0	48.8	42.6	105.71	1.3%	7.1%	26.6%	33.1%
October					107.81	2.0%	8.8%	23.9%	32.3%
November					109.59	1.6%	10.0%	21.5%	29.7%
December	52.8	46.0	47.2	41.1	111.83	2.0%	11.6%	19.7%	27.7%
<b>1998</b>									
January					119.85	7.2%	18.4%	20.4%	28.4%
February					135.03	12.7%	32.0%	22.8%	31.4%
March	53.0	45.2	37.3	31.8	142.15	5.3%	39.1%	42.9%	46.3%
April					148.83	4.7%	44.8%	49.2%	52.3%
May					156.93	5.4%	52.4%	58.1%	57.8%
June	56.6	48.0	34.5	29.3	163.89	4.4%	59.5%	52.8%	54.0%
July					177.92	8.6%	72.0%	50.3%	52.3%
August					189.13	6.3%	81.2%	54.9%	56.6%
September	61.7	53.5	31.4	27.3	196.23	3.8%	85.6%	61.0%	63.2%
October					195.70	-0.3%	81.5%	60.9%	60.3%
November					195.86	0.1%	78.7%	54.1%	52.2%
December	61.9	53.3	31.2	26.8	198.64	1.4%	77.6%	41.2%	41.9%
<b>1999</b>									
January					204.54	3.0%	70.7%	37.1%	38.9%
February					207.12	1.3%	53.4%	37.3%	38.9%
March	58.3	58.3	28.2	28.2	206.75	-0.2%	45.4%	37.0%	37.8%
April					205.34	-0.7%	38.0%	33.5%	35.5%
May					204.76	-0.3%	30.5%	29.7%	30.0%
June	78.4	62.9	38.4	30.8	204.07	-0.3%	24.5%	24.1%	23.9%
July					201.93	-1.0%	13.5%	18.2%	17.1%
August					200.05	-0.9%	5.8%	13.2%	13.1%
September					198.68	-0.7%	1.2%	12.4%	12.7%
October					198.79	0.1%	1.6%		

Note: The real wages are derived by dividing nominal wages by the corresponding consumer price index.

- Source: 1. For wages (in Rp.1,000), Badan Pusat Statistik, *Statistik Indonesia 1997, 1998 and Statistik Upah 1998* and others.  
 2. For consumer price index (1996=100), Badan Pusat Statistik, *Buletin Ringkas*, various issues.  
 3. For interest rates, Bank Indonesia, *Statistik Ekonomi Keuangan Indonesia*, various issues.

**Figure 6-2 The Quarterly Growth Rate of real GDP and the Savings Rate**

Note: The savings rate is calculated by the following equation:

$$\text{Savings rate} = (\text{Nominal GDP} - \text{Private and government consumption}) / \text{Nominal GDP}$$

Source: Compiled by the author based on Badan Pusat Statistik's data.

denying that real wages are certainly on the increase after the second quarter of 1999.

Now, keeping in mind that private consumption has been gradually picking up since the end of 1998, let us look into what changes took place in the composition of people's consumption expenditure during the preceding years of 1997 and 1998, when consumption was in a slump.<sup>9</sup> Tables 6-3-A and 6-3-B, which are tabulated on the basis of the findings of the Badan Pusat Statistik (BPS) annual "National Socio-Economic Survey," respectively show the percentage breakdown of monthly consumption expenditure by different income groups in 1997, and the changes that took place between 1997 and 1998 in the percentage breakdown for different income groups. An examination of the changes in the percentage breakdown of monthly consumption expenditure from 1997 to 1998 reveals that the group of people in the lower end of the expenditure scale, who spend less than 40,000 rupiahs per person a month, and who are therefore deemed to be small income earners, cut back on their expenditure for housing and fuels, and for clothes and footwear in compensating with the increased expenditure on rice and education. The group of people spending between 40,000 and 80,000 rupiahs per person a month, who are deemed to be middle income earners, cut back on their expenditure on housing and fuels, and for durable consumer goods, also in their respective efforts to cope with the increased expenses for rice and education.

On the other hand, the group of people with a monthly outlay of between 80,000 and 300,000 rupiahs per person, who are deemed to be high income earners, and the group of people spending 300,000 rupiahs or more a month per person, who are deemed to be super-high income earners and who constitute only around 1% of the total population, respectively cut back on their expenditure on housing and fuels, and on durable consumer goods, to cover not only the increased expenses for foodstuffs and education but also those for health care as well.<sup>10</sup> It should be noted here that the figures in Table 6-3 are based on nominal expenditure, not on inflation-adjusted real expenditure.

One can say that, on the whole, the domestic market sank fast as the economic crisis worsened during 1998. Low and middle income earners cut back their expenditure on clothes and footwear, and for housing and fuels, while high income earners drastically trimmed their expenses for housing and fuels, and for durable consumer goods. However, as the economy entered the phase for transition to recovery beginning in the fourth quarter of 1998, and as the downward trend of real wages came to a halt, many people opted to channel their increased real incomes not into savings but into consumption.

**Table 6-3-A Composition of Consumption Expenditures by Monthly per Capita Expenditure Classes**

(%)

	Monthly per capita expenditure classes			
		Rp. 40,000	Rp. 80,000	Rp. 300,000
	Rp. 39,999	Rp. 79,999	Rp. 299,999	
Rice	25.70	16.86	8.57	1.88
Other foodstuffs	45.93	49.25	44.79	25.01
Housing and fuels	13.49	15.74	22.48	39.59
Various goods and services	2.43	3.31	5.19	6.81
Education	2.31	3.02	4.65	5.13
Health care	1.35	1.68	2.12	2.58
Clothes and footwear	5.04	4.93	4.33	2.94
Durable consumer goods	1.69	2.55	4.39	10.92
Taxes and insurance fees	0.61	1.02	1.68	2.69
Social expenses	1.43	1.65	1.81	2.46
Share of classes, % of total	33.52	47.07	18.74	0.67

**Table 6-3-B Changes of Composition of Consumption Expenditures 1997 to 1998 by Monthly per Capita Expenditure Classes**

(%)

	Monthly per capita expenditure classes			
		Rp. 40,000	Rp. 80,000	Rp. 300,000
	Rp. 39,999	Rp. 79,999	Rp. 299,999	
Rice	3.63	4.44	3.10	2.05
Other foodstuffs	▲ 0.98	▲ 0.67	1.69	3.76
Housing and fuels	▲ 1.43	▲ 1.92	▲ 2.69	▲ 3.71
Various goods and services	▲ 0.16	▲ 0.35	▲ 0.81	▲ 0.80
Education	0.10	0.05	0.27	2.83
Health care	▲ 0.05	▲ 0.12	0.04	0.41
Clothes and footwear	▲ 0.51	▲ 0.28	▲ 0.13	0.02
Durable consumer goods	▲ 0.24	▲ 0.52	▲ 0.88	▲ 3.23
Taxes and insurance fees	▲ 0.14	▲ 0.25	▲ 0.32	▲ 0.56
Social expenses	▲ 0.24	▲ 0.38	▲ 0.26	▲ 0.77
Share of classes, % of total	▲ 15.46	4.52	10.58	0.35

Source: Compiled by the author based on Badan Pusat Statistik data.



#### 6.4 The Depreciation of the Rupiah's Value and an Export Drive

The worsening of the rupiah's exchange rate had the short-term effect of beefing up Indonesia's export competitiveness, by lowering its export prices in foreign currencies. This effect is especially significant for firms with low dependence on imported intermediary products because the reduction in their labor costs relative to those of their foreign competitors widens the difference between their production costs and international price levels, giving them a greater degree of freedom in price-setting and thus enabling them to expand their export earnings. In other words, firms which have been consistently depending more on export markets than on the domestic market can enjoy greater benefits from the fall in the currency value. This also means that firms which have been catering mainly to the domestic market can also partake in the same benefits by launching an export drive and switching their targets from the domestic to the export market.

Table 6-4, compiled on the basis of national income statistics, is meant to provide a macroscopic view of the extent to which an export drive was at work from early 1996 until mid-1999. Entered in the column on the left-hand side is the ratio of nominal exports in each quarter to nominal GDP in the same quarter, which means the ratio of exports to GDP in each quarter as measured in face value. The second column from the left lists the index of real GDP in each quarter, with real GDP in the first quarter of 1996 taken as 100. To put it more plainly, the second column shows how GDP in each quarter, as measured on a quantitative, not a value basis, compares with that in the first quarter of 1996. The third column lists the ratio of real exports in each quarter to real GDP in the first quarter of 1996, the ratio which, in plain language, compares the size of real exports in each quarter measured on a quantitative basis with real GDP in the first quarter of 1996. The fourth column shows the quarter-to-quarter rate of increase in real GDP, while the fifth column shows the quarter-to-quarter change in the rate of real exports' contribution

**Table 6-4 An Analysis of the Export Drive Based on National Income Statistics**

	Ratio of nominal exports in each quarter to nominal GDP in the same quarter	Index of real GDP in each quarter, with real GDP in the first quarter of 1996 taken as 100	Ratio of real exports in each quarter to real GDP in the first quarter of 1996	Quarter-to-quarter rate of increase in real GDP	Quarter-to-quarter change in the rate of real exports' contribution to the growth of real GDP
1996 I	25.1%	100.0%	26.3%	-0.7%	-1.9%
II	26.3%	102.8%	28.7%	2.8%	2.3%
III	25.8%	108.9%	27.4%	5.9%	-1.2%
IV	26.0%	111.1%	30.4%	2.0%	2.7%
1997 I	22.9%	107.5%	25.5%	-3.2%	-4.4%
II	27.4%	108.2%	29.6%	0.6%	3.8%
III	26.6%	114.6%	32.4%	6.0%	2.6%
IV	36.5%	112.3%	36.3%	-2.1%	3.4%
1998 I	57.3%	103.3%	40.2%	-8.0%	3.5%
II	58.9%	92.4%	36.1%	-10.6%	-4.0%
III	62.9%	96.2%	39.8%	4.1%	4.0%
IV	37.0%	92.4%	21.6%	-3.9%	-18.9%
1999 I	34.0%	93.6%	22.4%	1.3%	0.8%
II	32.8%	94.0%	22.5%	0.5%	0.2%
III	36.2%	96.7%	23.9%	1.5%	1.9%

Source: Compiled by the author based on Badan Pusat Statistik data.

to the growth of real GDP.

It is clear from this table that the ratio of nominal exports to nominal GDP increased almost concurrently with the eruption of the currency crisis, jumping from 26.6% in the third quarter of 1997 to 36.5% in the fourth quarter of 1997. In the period of the deepening of the economic crisis, it exceeded 50% or even 60%, meaning that exports accounted for more than half of GDP. Also, quarterly real exports as a ratio of real GDP in the first quarter of 1996 increased to 32.4% in the third quarter of 1997, the highest level since 1996, and jumped further to 40.2% in the first quarter of 1998. It can be inferred from this that an intensive export drive which was kicked off by the fall of the rupiah's value continued to be in place until the first quarter of 1998.

In the second quarter of 1998, however, the rate of exports' contribution to GDP growth dropped to minus 4.0%, perhaps under the effects of confusions that grew before and after former President Soeharto's resignation in May 1998. Subsequently, the rate picked up for a short time in the third quarter of the year, when the rupiah's exchange rate remained low at the level of 10,000 rupiahs or more to the dollar. But in the fourth quarter of 1998, it decreased by a large margin to minus 18.9%, reflecting that stagnant exports were dragging down the growth of real GDP. Factors of possible importance underlying this sharp drop in the rate of exports' contribution to GDP growth seem to be that the rupiah's appreciation made Indonesia's exports less competitive than previously, and that domestic demand began to show a modest recovery. Nonetheless, it is important to keep in mind that beginning in the fourth quarter of 1998, the ratio of quantitative exports to the first quarter of 1996's real GDP remained below 25%, a level lower than in the pre-crisis period, although modest recovery is shown in the third quarter of 1999.

Domestic prices almost doubled during the period from 1997 to the end of 1998 (Table 6-2). But, assuming that the rupiah's exchange rate is approximately 7,000 rupiahs to the dollar, approximately three times the pre-crisis level, the rupiah's value in terms of the inflation-adjusted exchange rate must be still lower than the level before the crisis, unless deflation is taking place in foreign countries. What is more, the domestic market, although having entered a phase of transition to recovery, has not yet

recovered to the pre-crisis level. These considerations point to the possibility that there prevails in some quarters of the economy a situation wherein exports are further stagnating due to factors other than the recovery of the real exchange rate, so that an export drive cannot effectively work despite the fact that domestic demand still remains weak.

### *6.5 Production Levels of Various Industries*

In contrast to the descriptions of the foregoing sections which have focused on the macroscopic environments surrounding firms or industries, this section will focus on more microscopic industrial sectors and examine changes over time in their production levels.

#### **6.5.1 Explanations about a Table of Production Indices and General Trends**

As examined above, the rupiah's exchange rate gradually deteriorated during the initial period of the economic crisis, then crawled at the level of 10,000 rupiahs or more during the period of the deepening of the crisis, and after the economy entered the phase of transition to recovery it has been fluctuating at the level of between 6,000 and 10,000 rupiahs to the dollar. Taking into account the effects of these changes in the exchange rate on firms' costs of importing intermediary goods, and on the domestic market, one can duly assume that production levels in many industries must have changed in the shape of the letter V during the economic crisis, starting from high levels that had existed before the outbreak of the crisis, decreasing in the aftermath of the fall in the rupiah's value, hitting the bottom, and then beginning to turn upward slightly. Moreover, for an industry whose production level before the outbreak of the economic crisis was higher than that after the crisis, the letter V's left arm is expected to be longer than its right arm, and conversely, for an industry whose production picked up phenomenally after the outbreak of the crisis, the letter V's right arm is expected to be longer than its left arm.

On the other hand, in the case of labor-intensive industries with negligible dependence on imported intermediary goods, which had their export competitiveness reinforced by the fall in the rupiah's value, their production levels are expected to have changed in the shape of the inverted letter

V, with their production peaking during the period of the deepening of the economic crisis and starting to decrease with the onset of the recovery phase. Thus, examining changes in an industry's production level over the course of the economic crisis – the period before the outbreak of the currency crisis, the period of the beginning of the economic crisis, the period of deepening of the crisis, and the period of transition to recovery – and identifying the specific points in time when the production reached its high-water and low-water marks can be an effective means of examining the effects of the rupiah's fluctuations on the production levels of various industries.

Table 6-5 takes the period from the second quarter of 1997, immediately before the outbreak of the currency crisis, to the second quarter of 1999, and classifies manufacturing industries by the point in time during which their quarterly production indices of large- and medium-sized firms as published by the Badan Pusat Statistik reached the high-water and low-water marks. The figures in brackets represent the ratio of the highest to the lowest production indices attained by the industry concerned. Thus, an industry having a large figure in brackets is one that experienced a large discrepancy between its peak and bottom production levels and it is highly likely that a graph of its production over time takes a very distinct shape of the letter V or the inverted letter V, mentioned above. In contrast, an industry having a figure in brackets that is close to 1 is assumed to have its production little affected by the economic crisis. Furthermore, an industry is shaded in the table if the ratio of its production index in the second quarter of 1999, the most recent quarter, to its low-water mark index is 1.5 or larger, so as to provide a means of determining whether the industry is already on its way to a full-blown recovery.

One thing immediately clear from the table is that industries are distinctly divided into two groups, one group clustering in the left-hand side and lower part of the table and the other in the right-hand side and upper part. Industries in the left-lower part of the table saw their production indices peak during 1997 and then decrease to considerable extents under the effects of the economic crisis. Those in the right-upper part of the table are the ones which enjoyed an uninterrupted increase in their production even during the economic crisis. Obviously, the number of industries

in the former group is much larger than that in the latter group. This fact confirms the generally accepted view that on the whole the economic crisis produced negative effects on industry. And this is consistent with the observations made above that, compared to the weakening of domestic demand, the export drive has proved effective only to a limited extent.

### 6. 5. 2 The Process of Recovery for Industries Adversely Affected by the Economic Crisis

Among the industries which are classified in the left-lower part of the table and which were adversely affected by the economic crisis, this subsection will first focus on those which are producing products for final consumption. It is not far-fetched to assume that, among these industries classified on the left-hand side of the table, those which hit the low-water marks early on must have started recovering from the economic crisis early, most likely entering a recovery process in the quarter immediately following the one in which their production hit bottom. More specifically, the production of such non-durable consumer goods as malt and liquors, pharmaceuticals, and cooking oil hit the bottom first, in the second quarter of 1998, and their production must have started picking up in the third quarter of the year. They were followed by powder milk, peeled beans and peas, and clove tobacco which hit the bottom in the third quarter of 1998, and then by noodles, and chocolate and cakes in the fourth quarter of 1998. Thus, with the exception of the bakery product industry which did not hit the bottom until the second quarter of 1999, virtually all the foodstuff and beverage sectors are deemed to have bottomed out during 1998.

Turning next to sectors producing semi-durable consumer goods, three sectors – footwear, apparel and garments, and cotton spinning yarns, which is on the upstream of the textile industry – bottomed out in the third quarter of 1998, followed by CD and cassette tapes, and sneakers in the fourth quarter of the year. Thus, the recovery in semi-durable consumer goods seems to have begun with one quarter's lag behind that for foodstuffs and beverages.<sup>11</sup> Among durable consumer goods industries, on the other hand, some sectors such as motorcycles and household electrical appliances, which hit bottom in the fourth quarter of 1998, and

**Table 6-5 Manufacturing Industries of Indonesia Classified by the Period When the Peak**

		Quarter when the peak production index was reached			
		1997 II	1997 III	1997 IV	1998 I
Quarter when the bottom production index was reached	1997 II				Plastic furniture (1.0)
	1997 III	Knitted mills (1.6)			
	1997 IV				
	1998 I	Coffee (2.9) Smoked rubber (2.2)			
	1998 II	Molt and liquors (3.1) Industrial paper (2.8) Construction materials (2.2) Metal pipes(2.1)	Motor vehicle-related goods (3.9) Pharmaceuticals (2.0) Batics (1.8) Cement (1.7) Porcelain construction marerials (1.4)	Animal feed (2.2) Synthetic resins (1.6) Cooking oils (1.4)	
	1998 III	Powder milk (4.3) Pealed beans and peas (2.5) Clove tobacco (2.1)	Wires (2.5) Footwear (2.1)	Nonferrous refining (2.1) Metal containers (1.7) Spinning yarns (1.3) Apparel or garments (1.2)	
	1998 IV	Other chemicals (5.0) Sneakers (2.6) Sawmills (2.1) Noodles (2.0) Non-apparel textile CD and cassette tape (1.8)	Motorcycles (4.9) Household eletric appli- ances (2.3) Chocolate and cakes (2.1)	Internal-combustion engines (14.8) Lights and lamps (2.4) Miscellaneous basic chemicals (2.1) Bamboo furniture (1.6) Weaving mills (1.3)	Processed tea (1.3)
	1999 I		Motor vehicles (9.6) Motor vehicles bodies (8.6) Cardboard boxes (2.0) Paints and varnish (1.6)		
	1999 II	Air-conditioner and regrigerator (43.1) Structural cement products (4.4) Electric wires and retelephone wires (2.9) Printing and publishing (2.2) Pesticides (1.3) Plywood (1.3)	Dry cell batteries (4.1)	Bakery products (5.5) Rolled steel sheets (1.7)	Coconut cooking (2.2) Glass for household use (2.1) Wooden furniture (1.2)

Source: Compiled by the author based on Badan Pusat Statistik, *Indikator Ekonomi* (Economic Indicators).

Notes: 1. The figures in the brackets represent the ratio of the highest to the lowest production indices attained by the industry concerned.

2. An Industry is shaded if the ratio of its production index in the second quarter of 1999, the last quarter shown here, to its low-water mark index is 1.5 or larger.

**and Bottom Production Index Figures Were Reached**

Quarter when the peak production index was reached				
1998 II	1998 III	1998 IV	1999 I	1999 II
	Basic inorganic chemicals (1.7)	Palm cooking oil (2.0)		Pre-fabricated metal products (2.6) Finished textile goods (1.6)
	Synthetic fibers (1.1)		Cosmetics (2.3)	
Frozen fishes and Shellfishes (1.4)		Crumb rubber (1.2)		Kitchen ware (1.9)
	Sugar (65.0) Soft drinks (1.2)	Cigarettes (1.8)	Seasonings (1.5)	
		Plastic goods (2.6) Printed textiles (1.8)	Motorcycle components (3.3)	Soaps and cleaning aids (2.5) Plastic containers (2.2) Electric accumulator (1.9) Paper products (1.9) Tires and tubes (1.8) Basic organic chemicals (1.5)
			Iron refining (2.1) Rubber products (1.5)	Iron and steel (1.4)
				Rice milling (1.6) Adhesives (1.2)
Electronic components (1.8)				
Wheat flour (2.5) Leather (2.1) Miscellaneous wood-work (1.7)			Synthetic fertilizer (1.7)	

3. It should be kept in mind that the production indices of both the basic inorganic chemicals and the sugar industries seasonally surge in the third quarter of each year.
4. The bold lines are meant to mark the end and/or the beginning of the four periods, namely, the period before the outbreak of the currency crisis, the period of beginning of the economic crisis, the period of deepening of the crisis, and the period of transition to recovery.
5. Detailed description and the industrial code of respective industries are shown on Table 6-7.

motor vehicles, which hit bottom in the first quarter of 1999, have started picking up, but with a half year's delay from foodstuffs and beverages. The sector producing air conditioners and refrigerators is in much worse shape, as it still has a long way to go before entering the recovery process. What is more, the fact that the ratio between the bottom and peak production indices is approximately one-tenth for motor vehicles, approximately one-fifth for motorcycles, and as small as one-43rd for air conditioners and refrigerators, is revealing of how severely the durable consumer goods sectors were hit by the economic crisis. Most likely, this was due in part to these sectors' heavy dependence on imported intermediary goods, as pointed out in Section 2, and also to the fact that, as noted in Section 3, people who are deemed to be high income earners cut back on their expenditure for durable consumer goods most drastically in 1998.

Turning next to material and parts industries it should be noted that the production of components of motor vehicle and motorcycle hit bottom in the second quarter of 1998, much earlier than did the production of motor vehicles and motorcycles. Moreover, the production of motorcycle components in the quarter was in excess of the pre-crisis level. As evident from the fact that the production of motor vehicles and motorcycles had not yet started recovering by that time, this seems to reflect that the export drive for these parts was more effective than for finished durable goods. Similarly, the materials industries started to recover at relatively early points in time, just as early as foodstuffs, with the production of papers for industrial use, construction materials, and metal pipes hitting bottom in the second quarter of 1998, and that of porcelain construction materials and wires in the

third quarter. Given, moreover, the fact that all of these materials producing industries, with the exception of porcelain construction materials, are shaded in the table, these sectors seem to be well on their way to recovery. And considering the fact that construction activities within the country were virtually nonexistent during the economic crisis, it is safe to say that the production of these materials started picking up early because they were channeled mainly to export markets. The foregoing observations suggest that the export drive seems to have been more effective in the materials and components industries than in the final goods producing industries.

### 6.5.3 The Fall in the Rupiah's Value Triggered a Boom in Primary Industry

This subsection will focus on those industries whose production peaked during the period of the deepening of the economic crisis, the period from the first to the third quarter of 1998, when the rupiah's value was at its lowest. One thing especially noteworthy here is that the primary goods processing industries, such as frozen fish and shellfish, sugar, processed tea, coconut cooking oil, wooden furniture, leather, and miscellaneous woodwork, all enjoyed bonanzas following the outbreak of the currency crisis. As already noted in Section 6.2, for these industrial sectors, with their low dependence on imported intermediary goods, the drop in the rupiah's value produced favorable effects by reducing their comparative labor costs and allowing them to enjoy an export boom, at least temporarily. The industry producing palm cooking oil can also be regarded as one that enjoyed a similar, temporary boom, even though its production peaked not in

**Table 6-6 Production of Estate Crops, 1994 to 1998**

(Unit: 1,000 tons)

	Rubber	Palm oil (CPO)	Oil palm kernel	Cacao beans	Coffee beans	Tea	Cinchona bark	Sugar cane	Tobacco	Rosella (Jute)
1994	326.4	1930.3	472.1	43.7	19.7	98.0	0.3	2,420.7	5.1	16.4
1995	341.0	2476.4	605.3	46.4	20.8	111.1	0.0	2,104.7	9.9	12.7
1996	334.6	2569.5	626.6	46.8	26.5	132.0	0.4	2,160.1	7.1	4.9
1997	309.8	2980.9	708.3	59.7	23.0	118.4	0.1	2,166.7	8.1	9.6
1998	330.9	3855.4	778.3	83.0	24.1	157.2	0.4	1,931.8	5.7	3.7

Source: Badan Pusat Statistik, *Indikator Ekonomi*.

the third but the fourth quarter of 1998.

Described in Table 6-6 as a means of examining the supplies of materials for these industries are the changes in the production of estate crops in a five-year period from 1994 to 1998. It is clear from the table that quantities of palm oil, oil palm kernel, cacao beans and coffee beans produced in 1998 were the largest in the five-year period, with the amount of palm oil produced in 1998 increasing 1.5 times over that in 1996, palm kernel 1.2 times, cacao 1.8 times, and tea 1.2 times. To be sure, harvests of agricultural products tend to be affected by weather and the conditions of international commodity markets. But the increases in the production of estate crops in 1998 are so phenomenal as to suggest that the sharp drop in the rupiah's value during the period of the deepening economic crisis more than offset the negative effects of other factors and helped enhance the export competitiveness of primary goods producing sectors and related sectors. It should be kept in mind, however, that the boom in primary industry was only short lived, as can be seen from the fact that when the rupiah's value began to rally back in the subsequent period of transition to recovery, the production of frozen fish and shellfish, and processed tea went on the decline (Table 6-5).

#### **6. 5. 4 Industries that Boomed in spite of the Economic Crisis**

This subsection will briefly discuss industries which during the process of recovery from the economic crisis managed to enhance their production beyond the levels before the outbreak of the economic crisis. Constituting one group are sectors such as pre-fabricated metal products, finished textile goods, seasonings, printed textiles, kitchen ware, and cigarettes, all of which are classified on the right-upper part of the table. Production in these sectors, after having peaked once either in 1995 or 1996, prior to the eruption of the currency crisis, continued to decrease during 1997 and then started to pick up again. Although some of these sectors appear to have been affected by the economic crisis to some degree, their performance was, on the whole, strongly affected by factors other than the economic crisis.

A second group consists of sectors such as soaps and cleaning aids, tires and tubes, rubber products, iron and steel, and iron refining, all of

which, after having hit bottom in the period from the first to the third quarter of 1998, managed to expand their production beyond the levels before the outbreak of the economic crisis. One common feature of these sectors is that they depend on domestically produced primary resources for their inputs and process into products of higher added value.

#### *6. 6 Summary and Challenges to be Tackled*

To sum up the observations made in 6.5, many of the manufacturing sectors suffered from significant drops in their production as a result of the currency crisis, and there were several factors that underlay these sharp drops. One factor was that for the manufacturing sectors, more heavily dependent on imported intermediary goods than are primary industrial sectors, the drop in the rupiah's value translated into significant increases in the costs of imported intermediary goods. A second factor was a chain reaction triggered by the fall in the rupiah's value: when import prices began to soar, some firms in these sectors, having failed to pass the increased costs of imported intermediary goods on to their customers via higher prices, were forced to discharge their workers or even to shut down their operations, and this had the effect of suppressing real income and bringing domestic demand shrink. And a third factor was that export demand, though having picked up temporarily, failed to grow strongly enough to make up for the shortage of domestic demand.

The discussion in the preceding section has also made it clear that, since the economy entered the period of transition to recovery, and since the rupiah's exchange rate began to recover, production was on the increase, even if slowly, in a wide spectrum of manufacturing sectors, including those producing the essential necessities of life, components, materials, and some durable consumer goods. This upturn in manufacturing production has been stimulated by the recovery of the rupiah's value, which has had both the effects of reducing the costs of importing intermediary goods, on the one hand, and also the effects of calming inflationary pressure, raising real income, thereby bringing about a gradual upturn in domestic demand, on the other. All the foregoing developments can be explained, to some extent, by referring to the fluctuations in the rupiah's exchange rate.

However, when all the manufacturing sectors listed in Table 6-5 are taken into account, it should be pointed out that the number of sectors which have recovered their pre-crisis production levels is still small, and that manufacturing industry as a whole is far from making a steady progress toward recovery, even though the economy itself has already bottomed out. One important factor responsible for this is that production for exports is decreasing at a rate unproportionately higher than the extent of the recovery in the rupiah's real exchange rate. And the sharp decrease in export production, in turn, can be ascribed to a number of factors. First, those firms, especially indigenous ones, which are highly dependent on imported intermediary goods, are faced with difficulties in resuming production for exports. More specifically, the issue of the private sector's external debts, which was pointed out in Section 6.2 in connection with debt servicing costs, has grown serious to such an extent that Indonesian firms, now regarded as being farthest from creditworthy by foreign lenders, are finding it difficult to secure letters of credit acceptable to foreign banks, which are indispensable for importing intermediary goods from abroad.<sup>12</sup> Domestic banks, for their part, are heavily burdened with bad loans, and have virtually stopped supplying new loans. And the intensification of the credit crunch as part of the restructuring of the banking sector is also making it difficult for indigenous firms to raise funds necessary for resuming production.<sup>13</sup>

Second, consequent upon the worldwide media coverage on the riot of May 1998 and a series of other riots that erupted across the country, Indonesian products, in spite of their competitive prices, have come to be found less and less attractive by an increasing number of potential importers, who have misgivings about the probability that stable supplies of Indonesian exports might be disrupted by riots and other occurrences. In fact, cases of plunder began to erupt from around June 1998, and actual damage of no small amount was done when, for instance, shrimps almost ready for shipment were stolen from breeding ponds, or a truck loaded with clothes on its way from Bandung to the port of Tanjung Priok was looted.<sup>14</sup> It was reported that these cases of looting and the prospects that the general elections scheduled for June 7, 1999 would be disturbed by large-scale social turmoil, led a number of foreign importers to cancel their im-

port contracts for textile, shoes, and other goods.<sup>15</sup> In the apparel industry, for instance, some foreign buyers are reported to have shifted between half and two-thirds of their orders from Indonesia to countries such as Vietnam and Bangladesh, so as to disperse their risk.<sup>16</sup> After the general election, however, the contribution of real exports to GDP growth rate was 1.9% in the third quarter of 1999 and showed its pushing up the GDP growth rate by 1.5%; thus modest recovery of real exports was seen (Table 6-4). But, cases were still reported in which the East Timor issue and other problems resulted in cancellations of exports destined to Australia, the United States and Europe.<sup>17</sup>

Third, it takes time and money to develop new export markets, and this fact has made the effective launching of an export drive rather difficult. Fourth, in sectors where domestic prices had been relatively higher than export prices, gains in export competitiveness resulting from the fall in the rupiah's value have been canceled out, and have stimulated expansion of exports far less significantly than otherwise. Fifth, foreign-affiliated firms, especially those owned by multinational corporations, concerned as they are about striking a proper balance among production activities of their off-shore operations, have found it difficult to boost exports from their Indonesian operations alone. Sixth, a decrease of imports reduced containers that were necessary for exports. And seventh, products destined for exportation are generally required to be of higher quality than those to be sold within the country. At any rate, obstacles to export expansion have been numerous.

Turning next the agricultural sector and the primary goods processing sectors, their exports boomed for a short time following the depreciation of the rupiah. In the months of June and July 1998, when the exchange rate remained between 14,000 and 16,000 rupiahs to the dollar, many cacao producers, for instance, suddenly grew so rich with their expanded export earnings as to start purchasing automobiles, luxury goods which they had considered far beyond their means.<sup>18</sup> Another noteworthy development was that the export tariff on palm oil, which had been raised to 40% in April 1998,<sup>19</sup> became virtually ineffective when the rupiah's depreciation triggered a fresh boom in the exportation of palm cooking oil, which went so rampant as to create a shortage for cooking oil in the domestic market, forcing the government to raise



the export tariff to 60% on July 7.<sup>20</sup> It should also be noted that the looting of shrimps mentioned above is revealing of how profitable it was to export shrimps. The export boom in these sectors appeared so overwhelming that some authorities even dared to suggest that Indonesia should redefine its development strategy and assign a leading role to the agribusiness sector.<sup>21</sup>

As the rupiah's exchange rate began to recover subsequently, however, dollar-denominated export prices of palm oil soared, while the prices on international commodity markets dropped in early 1999 to approximately 40% of the peak levels.<sup>22</sup> In its effort to cope with the new situation, the government lowered the export tariff on palm oil to 40% on February 1, 1999,<sup>23</sup> to 30% on June 4,<sup>24</sup> and further down to 10% on July 2,<sup>25</sup> and even lowered the standard price of palm oil on July 30.<sup>26</sup> But all these measures remained virtually ineffective until the prices on international commodity markets started to show signs of recovery, with the result that many oil palm estate owners were faced with great difficulties. On the other hand, the same period saw the recovery of the rupiah's exchange rate and the fall in the price of sugar on international commodity markets stimulate Indonesia's sugar imports, forcing some sugar refineries in Central Java to close down,<sup>27</sup> and compelling the government to impose restrictions on sugar imports.<sup>28</sup> These developments show that the boom in the production of agricultural crops and their processed goods during the period of the deepening of the economic crisis was brought about solely by fluctuations in the rupiah's exchange rate, but never by improved productivity. It has become clear, on the other hand, that chemical industrial sectors which process palm oil and other raw materials into products of higher added-value, such as soaps, fatty acid and other oleochemical products, and the paper industry, which adds value to pulp, were operating at levels higher than those before the eruption of the economic crisis.

The foregoing observations point to the fact that depending excessively on the exportation of unprocessed or little-processed agricultural products is fraught with the risk of being affected by fluctuations in international commodity prices, fluctuations which can sometime be dramatically violent and can press hard on farmers' income. This means that encouraging the development of agribusinesses, with their strong orientation toward

the exportation of unprocessed or little-processed primary commodities, can prove risky in the long run. If the development of these agribusinesses specialized primarily in the exportation of low-value-added agricultural commodities is to be encouraged, it will be imperative to see to it that they expand their size and attain a high degrees of efficiency, and that measures be implemented on a systematic basis so as to help them avert the risk of being affected by fluctuations in international commodity prices. A more practical way for helping agribusinesses develop on a stable basis seems to be to help stabilize farmers' incomes by promoting the processing of primary commodities into products of higher added-value, such as oleochemical products and paper products, and by deepening the linkage between the upstream and downstream. It will be essential, in this connection, to see to it that proper lessons be drawn from failures in the past; unlike, for instance, the past practice in the sugar industry, whereby state-owned sugar refineries failed to provide any incentive to sugar-cane producing farmers, and thus allowed productivity to deteriorate, the refineries, instead of exploiting the farmers, should provide them with greater incentives for improving productivity.

Before concluding, it seems appropriate to comment briefly on some of the challenges to be tackled in the future. First, considering the serious extent to which Indonesia's industries, especially its manufacturing industries, suffered in the wake of the rupiah's depreciation, stabilizing the exchange rate is of vital importance for the development not only of the financial sector, but also of the real sectors. In order to accomplish this end, it is imperative for the Central Bank to act independently, keeping close watch on the inflows and outflows of foreign currencies in accordance with the Foreign Exchange Transactions Law, and implementing policies meant to prevent the country's balance of payments from sustaining large deficits. It is also true, however, that the rupiah's exchange rate can be affected significantly by non-economic factors, as it has actually been by factors such as the victory of the Indonesian Democratic Party of Struggle in the general elections, the Bank Bali scandal, and the East Timor issue. In this respect, the new government is charged with a large responsibility for bringing about social and political stability. Given, especially, the fact that President Abdurrahman Wahid has once undergone treat-

ment for cerebral thrombosis, keeping the president's own health in proper shape is an indispensable prerequisite for keeping Indonesia's society and economy in good health.

Second, Indonesia is faced with the task of enhancing its exports on a quantitative basis, which still remain below the pre-crisis levels before the outbreak of the currency crisis, in spite of the fact that rupiah's real exchange rate remains lower than its pre-crisis level. Underlying this problem are the problems of non-performing external and internal debts by the private sector, and the collapse of the internal financial market. Having been left unsolved even after the rupiah's exchange rate began to improve, these problems may be regarded as negative legacies of the currency crisis, so to speak. It is especially necessary to correct, as soon as possible, the problem of overestimated loan risk ratings for Indonesian firms. This problem, despite having been caused by the irresponsible behavior of some debtors who unabashedly continue defaulting on their debt repayments, is pressing hard on many of the small- and medium-sized firms which are doing business honestly, and is denying them access to loans necessary for financing the importation of indispensable intermediary goods from abroad. Efforts should also be made to prevent the recurrence of a situation, where social and political problems – such as riots, other forms of social instability, and incidents similar to the ones that temporarily worsened Indonesia's relations with Australia – may again lead foreign countries to shut their doors to, or become less acceptable to, Indonesian products.

Third, it is also urgently necessary for Indonesia to encourage investment from abroad, including those in the form of buy out of existing firms. With the establishment of the new government, which has opened up a prospect for further democratization of the country, Indonesia's political instability seems to have calmed down considerably. Given, moreover, the rupiah's real exchange rate, which remains at a level lower than before the eruption of the currency crisis, foreign firms are expected to find it profitable to acquire assets of high quality through corporate takeovers, and also to make direct investments to take advantage of a comparatively inexpensive labor force.

(Masami ISHIDA)

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#### **Notes:**

- 1 In this chapter, mining is included in primary industry, and utilities (electricity, gas, and water supply) in tertiary industry.
- 2 Of these, the currency value's drop in January 1998 was triggered by the "Habibie shock," or former President Soeharto's hinting that Mr. Habibie should be a prospective candidate for vice president, while the drop in June 1998 reflected the market's evaluation of the country's economic climate following the May 1998 riot, the step-down of Soeharto and the birth of the Habibie administration.
- 3 Even though the input-output table is published every five years, it is certainly undeniable that the table for 1995 is a bit out-dated, especially considering the amount of investment made between 1995 and mid-1997. Nonetheless, in view of the fact that scarcely any new investment has been made since the outbreak of the economic crisis, the country's industrial structure may be deemed to have changed not so drastically as it would have been under normal circumstances.
- 4 It should be noted, however, that in the electric appliance industry, and insofar as their goods destined for export are concerned, the negative effect of increased import prices produced by the depreciation of the rupiah were partially offset by increased foreign exchange earnings brought about by the exportation of these goods.
- 5 Comparing the currency crises in Indonesia, Thailand and South Korea, Motoo Kusakabe and Yoshio Horimoto's *Ajia no tsukakiki wa owattaka* (Is the Asian currency crisis over?), Tokyo: Nihon Hyoronsha, 1999, points out that during the period from 1991 to June 1997 the Indonesian currency depreciated against the U.S. dollar by 3.8% per year on the average, a margin larger than those of the South Korean and Thai currencies, but that the average rate of fluctuation of the rupiah's exchange rate, 0.7%, was the smallest, and the differential between domestic and international interest rates for Indonesia, 11.5%, was the largest.

- 6 The figure is based on a survey by Miki Takeda on the basis of World Bank statistics. Given, however, the balance of payments statistics which show a continuing net outflow of private funds since the fourth quarter of 1997, there is a possibility that some foreign-affiliated firms have started repaying their external debts. If this is actually the case, a situation described here, in which the total outstanding external debt as of June 1999 was in excess of the figure as of December 1997, is out of tune with reality, and points to the possibility that the figure for December 1997 is an underestimation.
- 7 Toshiro Nomura, "Kokunai shijo no senzaisei ni kitai" (Hopes are placed on the internal market's potentials), *Tsusho Koho*, May 31, 1999.
- 8 *Kompas*, February 19, 1999. For instance, the minimum monthly wage in the Special Capital District of Jakarta was raised from 198,500 to 231,000 rupiahs.
- 9 Details on the impact of economic crisis on people life will be introduced in Tara H. Soeprbo and Nur Hadi Wiyono, "Declining Standards of Living and the Social Safety Net Programs" in Masami Ishida, ed. *Factors on Economic Crisis and Policies to Solve Its Causing Problems in Indonesia*, Tokyo: Institute of Developing Economies, March 2000.
- 10 It is theoretically plausible to suppose that consumers, when faced with the appreciation of the prices of imported goods as a result of the fall in the rupiah's value, could switch to less expensive domestically produced goods as substitutes. Although behavior of this kind was observed to a limited extent in the purchase of medicines, it seems to have been mostly canceled out by the effects of decreases in real incomes. Yuri Sato, "Indonesia: Tsukakiki ga kokkateki kini ni shinka" (Indonesia: The currency crisis aggravates into a national crisis), *IDE World Trend*, No. 44 (April 1999), also points out that similar attempts to substitute imported goods with domestically produced goods were made in the component industry, but asserts that these attempts were of limited effect.
- 11 This, however, was not the case with batik which hit bottom one quarter earlier.
- 12 *Kompas*, January 22, 1999, reported that the government's incentives for encouraging trade-related loans were not yet bringing benefits to indigenous firms. On October 9, 1999, the same newspaper reported that the Bank Bali scandal and the East Timor issue had further raised Indonesia's country risk rating, making foreign banks ever more unwilling to accept letters of credit issued by Indonesian banks.
- 13 According to *Kompas*, October 19, 1999, since the Bank Bali scandal became an issue, domestic banks had become all the more unwilling to extend new loans.
- 14 See, for instance, *Kompas*, July 9, 1998.
- 15 *Kompas*, January 22, 1999 reported that the shoemaking industry sustained a 25% decrease in orders from abroad. *Kompas*, April 22, 1999 quoted Mr. Hashim Djojohadikusmo, a businessman, as stating upon his return from his European tour that many European importers were apprehensive about the probability that stable supplies of imports from Indonesia might be disrupted as the general elections approached.
- 16 Based on the author's interviews.
- 17 *Kompas*, October 19, 1999.
- 18 *Kompas*, July 3 and July 4, 1999.
- 19 As a matter of fact, the government does not charge a single, across-the-board export tariff on palm oil, but maintains a very detailed schedule of tariff rates applicable to different varieties of palm oil. The rates cited in the text represent those at the top of the tariff schedule at each point in time.
- 20 *Kompas*, July 8, 1998.
- 21 For instance, *Kompas*, June 25 and October 1, 1998.
- 22 Based on Bank Indonesia, *Statistik Ekonomi Keuangan Indonesia* (Indonesian Financial Statistics).
- 23 *Kompas*, January 30, 1999.
- 24 *Kompas*, June 5, 1999. The decision was based on the finance minister's Decision No. 189 of June 2, 1999 concerning the implementation of export tariffs on palm oil and related products.
- 25 *Kompas*, July 3, 1999.
- 26 *Kompas*, July 31, 1999.
- 27 See, for instance, *Kompas*, June 17, 1999.
- 28 *Kompas*, August 7, 1999.

**Appendix for Chapter 6 Details of Industrial Code and the Description**

Description	Code	Description
Adhesives	35291	Manufacture of adhesive
Air-conditioner and refrigerator	38294	Manufacture of air conditioner, refrigerator and the like
Animal feed	31281	Manufacture of prepared animal feeds
Apparel or garments	32210	Manufacture of wearing apparel or garments
Bakery products	31179	Manufacture of bakery products
Bamboo furniture	33212	Manufacture of furniture and fixtures made of bamboo and or rattan
Basic inorganic chemicals	35114	Manufacture of basic inorganic chemicals n.e.c
Basic organic chemicals	35118	Manufacture of basic organic chemicals (resulting special chemicals)
Batics	32117	Manufacture of batics
Cardboard boxes	34120	Manufacture of paper & cardboard boxes
CD and cassette tape	35604	Manufacture of records and cassette tapes
Cement	36310	Manufacture of cement
Chocolate and cakes	31192	Manufacture of food made of chocolate and sugar confectionery
Cigarettes	31430	Manufacture of cigarettes
Clove tobacco	31420	Manufacture of clove cigarettes
Coconut cooking oil	31153	Manufacture of coconut cooking oil
Coffee	31163	Peeling and cleaning of coffee
Construction materials	33112	Manufacture of moulding & building components
Cooking oils	31151	Manufacture of crude vegetable and animal cooking oil
Cosmetics	35232	Manufacture of cosmetic
Crumb rubber	35523	Manufacture of crumb rubber
Dry cell batteries	38392	Manufacture of dry cell batteries
Electric accumulator	38391	Manufacture of electrical accumulator
Electric wires and telephone wires	38396	Manufacture of electric and telephone cables
Electronic components	38324	Manufacture and sub assembly of electronic components
Finished textile goods	32115	Manufacture of finished textiles
Footwear	32411	Manufacture of footwear for daily use
Frozen fishes and shellfishes	31144	Manufacture of frozen fish & other similar products
Glass for household use	36211	Manufacture of glass products for household use
Household electric appliances	38321	Manufacture of radio, television and consumer electronics
Industrial paper	34113	Manufacture of industrial papers
Internal-combustion engines	38212	Manufacture of internal combustion engine
Iron and steel	37101	Iron and steel basic industries
Iron refining	37102	Iron and steel smelting industry
Kitchen ware	38114	Manufacture of metal kitchen ware (other than aluminum)
Knitting mills	32130	Knitting mills
Leather	32312	Manufacture of leather
Lights and lamps	38393	Manufacture of bulb, spot light and ultra violet lamps
Malt and liquors	31330	Manufacture of malt & liquors containing malt
Metal containers	38193	Manufacture of all kind of metal containers
Metal pipes	38195	Manufacture of metal pipes and fittings
Miscellaneous basic chemicals	35119	Manufacture of basic chemicals n.e.c
Miscellaneous woodwork	33190	Manufacture of products made of wood, cork, sorted, rattan and coffin
Motor vehicle body	38432	Manufacture of motor vehicle body
Motor vehicle components	38433	Manufacture of motor vehicle component and apparatus
Motor vehicles	38431	Manufacture of motor vehicles

(cont'd)

Description	Code	Description
Motorcycle components	38442	Manufacture of motor cycle, motorized tricycle component and apparatus
Motorcycles	38441	Manufacture of motor cycle and motorised tricycles
Non-apparel textile	32121	Manufacture of finished textile article except wearing apparels
Nonferrous refining	37203	Non ferrous metal smelting industry
Noodles	31171	Manufacture of macaroni, spaghetti, noodle and the like
Other chemicals	35299	Manufacture of chemicals n.e.c
Paints and varnish	35210	Manufacture of paint, varnishes and lacquers
Palm cooking oil	31154	Manufacture of palm cooking oil
Paper products	34112	Manufacture of paper products for cultural/social purposes
Pealed beans and peas	31164	Peeling and cleaning of seed other than coffee
Pesticides	35142	Manufacture of pesticides
Pharmaceuticals	35222	Manufacture of drugs and medicines
Plastic containers	35606	Manufacture of plastic bags, containers
Plastic furniture	35605	Manufacture of furniture and plastic fixtures
Plastic goods	35603	Manufacture of plastic articles
Plywood	33113	Manufacture of plywood
Porcelain construction materials	36112	Manufacture of structural materials made of porcelain
Powder milk	31121	Manufacture of powdered, condensed and preserved milk
Pre-fabricated metal products	38139	Manufacture of pre-fabricated metal products n.e.c
Printed textiles	32116	Manufacture of printed textiles
Printing and publishing	34200	Manufacture of printed, publishing and allied industries
Processed tea	31221	Manufacture of processed tea
Rice milling	31161	Rice milling and husking
Rolled steel sheets	37103	Steel rolling industry
Rubber products	35593	Manufacture of rubber not for home and industry/use products
Sawmills	33111	Sawmills
Seasonings	31262	Manufacture of food seasoning
Smoked rubber	35521	Manufacture of smoked rubber
Sneakers	32412	Manufacture of sport shoes
Soaps and cleaning aids	35231	Manufacture of soap and cleaning aids, including tooth paste
Soft drinks	31340	Manufacture of soft drinks
Spinning yarns	32111	Spinning yams
Structural cement products	36321	Manufacture of structural cement products
Sugar	31181	Manufacture of granulated sugar
Synthetic fertilizer	35122	Manufacture of compost fertilizers
Synthetic fibers	35133	Manufacture of synthetic fibres
Synthetic resins	35131	Manufacture of synthetic resins
Tires and tubes	35511	Manufacture of tyre and tubes
Weaving mills	32114	Weaving mills except gunny and other sacks
Wheat flour	31168	Manufacture of wheat flour
Wires	38194	Manufacture of wire
Wooden furniture	33211	Manufacture of furniture and fixtures made of wood