The Meltdown of the Indonesian Economy in 1997-1998: Causes and Responses

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Indonesia was hit hardest by the recent economic crisis. Overinvestment in non-traded sector and manufacturing industries that required high level of protection was the root cause of the crisis. The weak financial system of Indonesia also exacerbated the crisis. The crisis was aggravated further by the political uncertainty that evolved around the departure of Suharto. The lack of government determination to adopt sound macroeconomic management did not help, either. This paper reviews the banking and currency crisis still unfolding in Indonesia from various angles. For this purpose, it first reviews the recent macroeconomic developments prior to the crisis. Then the paper discusses the banking crisis in detail. An analysis of the policy responses to the crisis is another integral part of the paper. (*JEL* Classifications: E50, F30)

I. Introduction

Indonesia was hit hardest by the recent financial crisis in Asia. To defend its external reserve position, Bank Indonesia, the central bank, on August 14, 1997, abandoned the exchange rate intervention band and moved to floating exchange rate system. Since then the exchange rate and interest rates have been fluctuating wildly. The external value of the rupiah has depreciated by over 80 percent since July 1997 when it was trading at about Rp2,400 to the US dollar. During the same period, the composite stock price index at the Jakarta Stock Exchange has plunged by more than 50 percent.

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By the end of 1997, according to an analyst at Pentasena Securities, only 22 of 282 firms listed on the Jakarta Stock Exchange were operating with sufficient cash flow (*The Jakarta Post*, 9 January 1998). Bank deposit and loan interest rates have soared to the present level of over 50 percent per annum. Meanwhile, the liquidity has been very tight and depositors have had to pay an expensive penalty for withdrawing time deposits before their maturity dates.

Capital outflows continued to accelerate in spite of the four standby arrangements with the IMF, very high interest rates, sharp depreciation of the rupiah, and financial indicators attesting to the long-term solvency of the Indonesian economy. This was partly because of the political uncertainty and lack of determination on the part of the government for solving the crisis. Investors feared imminent defaults on short-term debts, especially dollar-denominated private sector ones, and bankruptcies of the financially weak banks and their clients, as well as the possibility of explosive inflation in the coming months. Pervasive lack of confidence in the government, aggravated by the closure of 16 financially distressed private banks in November 1997, precipitated bank runs, panic buying and capital flight that led to an external liquidity crunch and a sharp increase in the velocity of money. Imports were restrained as foreign banks became reluctant to roll over short-term debts and accept Indonesian letters of credit. The fear of further currency depreciation put the exchange rate and interest rates under more pressure. Government decisions to limit access to foreign borrowings and to shift public sector deposits from (mainly state-owned) commercial banks to the central bank squeezed liquidity. With banks turning suddenly illiquid, the risk of defaults by corporate borrowers and bankruptcies also increased. The fact that Bank Indonesia changed, in mid August 1997, to floating exchange rate system suggests that it had only a modicum of external reserves to defend the exchange rate.

The financial crisis occurred in an awkward time for Indonesia. On the domestic front, the weather-related problems caused by El Niño which ignited forest fires and resulted in a long drought last year are likely to continue through this year. This will cause serious damages in the forestry and agriculture sectors, reducing their exports and raising food prices. Rice production is also estimated to have declined by 8-10 percent in 1997-8. On the external front, the fall in oil prices and low demand for Indonesian exports reduced foreign exchange revenues while economic difficulty and slow growth in Japan and Korea drained capital inflows from those countries. The recession in these countries have also reduced their imports from Indonesia.

The economic problem was worsened by political uncertainty accompanied with the elections in 1997 and the Presidential election in March 1998. As people were angered by rising prices and unemployment, violent riots erupted in a number of towns that led to the resignation of President Suharto who ruled the country for 32 years since 1966. Even with his departure, political uncertainty remains. The newly appointed President Burhanuddin Jusuf Habibie (and most of the members of his cabinet), known as a protégé of Mr. Suharto, has no political base and has a reputation as a big spender.

This paper reviews the present currency and banking crises in Indonesia, and their causes and impacts. The rest of the paper is divided into four sections. Section II examines the macroeconomic developments in the run-up to the crises. Section III discusses the banking crisis. Section IV analyses policy responses to cope with the crisis. Conclusions are in the last section.

II. Macroeconomic Policy

The present currency crisis in Indonesia exemplifies the inconsistency between fiscal and monetary policies in an exchange rate system with an intervention band. Such a system generated not only an appreciation of the real exchange rate but also much speculation when the band was finally abandoned on August 14, 1997. As the growing current account deficit could not be financed by running down external reserves, there were two policy options available for the government to reduce the deficit: to cut domestic absorption or to depreciate the domestic currency. The authorities opted to defend its external reserves by moving from the intervention band system to a free float which raised both interest rates and the exchange rate. As the banks had high bad-loan ratios, the rising interest rates and the exchange rate generated many bankruptcies and badly hurt the financial system and economic growth, particularly due to the heavy reliance of Indonesian companies on debt financing.

Indonesia was indeed in need of adjustment because of the weaknesses in its economic fundamentals and the changes in international environment that began in 1995. On the domestic front, the massive capital inflows and the rising share of short-term private sector capital since the early 1990s have caused bouts of domestic economic overheating as the rapid economic growth was accompanied with rising domestic inflation and interest rates, and with widening current account deficit (Table 1). The low rate of inflation, high growth of GDP and high growth rate of non-oil exports, which were often quoted as the indicators of sound economic fundamentals, were largely results of manipulation. The government had to pay expensive subsidy to control prices of goods produced in the state sector and thereby kept the inflation rate artificially low, below 10 percent per annum between 1990 and 1996. The high rate of GDP growth during the 1990s was mostly associated with the bubble industries, including construction, public utilities, and services in the non-traded sector of the economy (Table 2). Moreover, most of the growth of non-oil exports during the 1990s was in those sectors which, like electronics, sport shoes, textile and garments, relied least on domestic inputs, and were associated with firms from other countries in East Asia (mainly Japan, South Korea and Taiwan) with strong currencies. In contrast, those which were domestically owned or relied heavily on domestic inputs fared poorly. Parts of the problem were due to the quotas imposed on the export of palm oil and other wood-based products (Table 3). Revenues from oil export also declined because of the fall in oil prices which, at present, are at the lowest level in the past 10 years.

On the external front, a combination of the yen depreciation against the US dollar since 1995 and the weak banking system in Japan has slowed down the inflow of Japanese foreign direct investment to Indonesia. Capital flows from NIEs also dried up due to the slow growth of their exports and strains in their financial systems (in the case of Korea). The rise in interest rates and investment returns in the United States has further reduced capital inflows as it made investment in emerging countries, including Indonesia, less attractive. The combination of these internal and external factors has caused a reversal of foreign capital inflows.

The IMF program signed on June 24, 1998, the fourth since October 1997, predicted that economic growth would fall to at least

TABLE 1

INDONESIA: SELECTED KEY INDICATORS, 1990-6

(in percent of GDP, unless otherwise indicated)

	1990	1991	1992	1993	1994	1995	1996
Internal Stability							
Gross Domestic Product							
Real GDP (% of growth rate)	9.0	8.9	7.2	7.3	7.5	8.1	7.8
Consumption	63.3	64.1	61.8	64.7	65.6	65.9	66.0
Private	54.4	55.0	52.3	55.7	57.4	57.8	58.3
Government	9.0	9.1	9.5	9.0	8.1	8.1	7.7
National Saving	27.5	26.9	26.9	27.0	28.4	28.0	29.3
Private	19.1	19.8	20.5	20.4	22.0	22.4	23.0
Public	8.4	7.1	6.4	6.6	6.4	5.6	6.3
Investment	30.1	29.9	29.0	28.3	30.3	31.3	32.7
Private	23.5	21.7	20.9	20.9	24.0	25.8	27.4
Public	6.6	7.7	7.8	7.4	6.3	5.5	5.3
Inflation (CPI)	9.5	9.5	4.9	9.8	9.2	8.6	6.5
Fiscal Balance	0.4	0.4	-0.4	-0.6	0.1	0.8	0.2
External Stability							
Current Account Balance	-2.8	-3.7	-2.2	-1.6	-1.7	-3.6	-3.7
Net Capital Inflows	4.9	5.0	3.8	1.7	2.0	4.3	5.0
Of which:							
Net Portfolio Investment	-0.1	0.0	-0.1	1.1	2.2	2.0	n.a.
Net Direct Investment	1.0	1.3	1.4	1.0	0.8	1.9	n.a.
Other Capital	3.3	3.6	3.5	1.4	-0.9	1.3	n.a.
Net Error and Omissions	0.7	0.1	-1.0	-1.9	-0.1	-0.9	n.a.
Reserves (in months of imports)	4.7	4.8	5.0	5.2	5.0	4.4	5.1
Ratio M2 to Reserves (%)	514.0	505.7	497.4	557.1	602.9	657.4	633.3
Total External Debt	65.9	68.4	69.0	56.6	54.6	53.3	52.0
Total External Debt (in percent of Exports of Goods and Services)	222.0	236.9	221.8	211.9	195.8	205.0	194.0
Short term Debt(in percent of Total External Debt)	15.9	17.9	20.5	20.1	17.7	20.9	24.8
Short Term Debt (in US$ billion)	11.1	14.3	18.1	18.0	17.1	24.3	29.3
Debt-Service Ratio (in percent of Exports of Goods and Services)	30.9	32.0	31.6	33.8	30.0	33.7	33.0
Exports Goods & Services (in percent of GDP)	26.6	27.4	29.4	25.9	26.0	26.0	26.2
Exports of Goods (% of growth rate)	15.9	13.5	16.6	8.4	8.8	13.4	9.7

Sources: IMF, *International Financial Statistics*, various issues.
IMF, *Annual Report*, 1996 and 1997.
World Bank, *World Debt Tables: External Finance for Developing Countries 1996*.
World Bank, *World Development Indicators*, various issues.

TABLE 2
INDONESIA: SHARE AND RATE OF GROWTH REAL GROSS DEMESTIC PRODUCT BY INDUSTRIAL ORIGIN
(at 1983 constant market prices for 1985-1993, and 1993 constant market prices for 1994-1997)

	Share		Rate of Growth							
	1985	1995	1990	1991	1992	1993	1994	1995	1996	1997[a]
Cross Domestic Product	100.0	100.0	7.2	7.0	6.5	6.5	7.6	8.1	8.0	4.6
Cross Domestic Product non Petroleum	78.7	91.3	7.6	6.5	8.4	7.8	8.1	9.1	8.3	5.3
1. Agriculture, Livestock, Forestry and Fishery	22.6	16.1	2.0	1.6	6.7	1.4	0.9	3.8	3.2	0.6
1.1. Farm Food Crops	14.0	8.6	0.5	-0.5	7.7	-1.2	-2.1	4.6	2.4	-1.8
1.2. Non-food Crops	3.6	2.6	4.9	5.4	4.8	5.8	5.1	4.7	4.2	4.3
1.3. Livestock & Products	2.4	1.8	3.7	6.0	7.9	5.6	4.0	4.2	6.1	4.1
1.4. Forestry	1.0	1.6	3.0	0.0	-2.2	1.7	0.5	0.0	1.3	-0.6
1.5. Fishery	1.6	1.6	5.0	5.2	5.8	5.7	8.8	1.9	4.6	5.0
2. Mining & Quarrying	18.2	9.3	5.2	10.2	-1 9	2.2	5.6	6.7	5.8	1.6
2.1. Crude Petroleum and Natural Gas	17.1	6.2	4.2	9.3	-4.5	-0.3	2.6	0.0	1.4	-1.4
2.2. Other Mining and Quarrying	1.1	3.1	18.0	20.1	24.0	20.8	13.9	23.5	14.6	7.0
3. Manufacturing Industries	15.8	23.9	12.5	10.1	9.7	9.3	12.5	10.7	11.7	6.2
3.1. Non-oil and Gas Manufacturing	11.5	21.3	13.0	10.9	11.0	11.6	13.5	13.0	11.7	7.4
3.2. Oil/Gas Industry	4.3	2.5	11.0	7.4	5.3	1.3	5.6	-5.4	11.1	-3.4
4. Electricity, Gas and Water Supply	0.4	1.1	17.9	16.1	10.1	10.1	12.5	15.5	13.2	11.8
5. Construction	5.3	7.6	13.5	11.3	10.8	12.1	14.9	12.9	12.8	6.4
6. Trade, Hotel & Restaurant	14.6	16.7	7.1	5.4	7.3	8.8	7.6	7.7	8.2	5.5
6.1. Wholesale and Retail Trade	12.2	13.4	6.8	5.1	7.4	9.0	6.8	7.7	8.2	5.9
6.2. Hotels and Restaurants	2.3	3.3	8.7	7.0	7.2	7.7	11.1	7.9	8.2	3.8
7. Transportation & Communication	5.3	7.2	9.6	7.9	10.0	9.9	8.3	9.4	7.8	8.4
7.1. Transportation	4.7	6.0	8.6	7.3	10.0	8.9	6.5	7.3	6.4	6.5
7.2. Communication	0.5	1.2	16.9	12.3	10.0	16.4	20.4	21.1	14.5	17.3
8 Financial, Ownership & Business	6.4	9.0	10.1	9.7	9.8	10.3	10.2	11.2	8.8	4.8
8.1. Banking and Other Financial Intermediaries	3.5	4.7	14 1	13.1	13 0	13.0	13.8	13.9	9.6	3.5

(Table 2 CONTINUE)

	Share		Rate of Growth							
	1985	1995	1990	1991	1992	1993	1994	1995	1996	1997[a]
8.2. Building Rental	2.9	2.8	4.2	4.0	4.2	5.0	4.0	5.5	5.8	5.0
8.3. Business Services	n.a.	1.4	n.a.	n.a.	n.a.	n.a.	12.0	14.2	12.1	8.5
9. Services	11.3	9.2	4.7	3.7	4.3	4.3	2.8	3.3	3.4	3.0
9.1. Public Administration and Defense	7.6	6.0	4.6	3.1	3.0	2.0	1.3	1.3	1.3	1.2
9.2. Private Services	3.7	3.2	5.0	5.2	7.3	8.9	5.8	7.2	7.4	6.3
Traded Sector[b]	40.2	38.9	8.5	9.3	4.5	6.2	9.5	8.5	9.1	4.7
Non-traded Sector[c]	59.8	61.1	6.4	5.3	7.8	6.7	6.5	7.9	7.3	4.6

Notes: a) Very preliminary data.
b) Comprise of Non-food Crops, Forestry, and Fishery, Mining and Quarrying, and Manufacturing Industries.
c) Comprise of Farm Food Crops, Livestock & Products, Electricity, Gas, and Water Supply, Construction, Trade, Hotel, and Restaurant, Transportation & Communication, Financial, Ownership & Business, and Services.

Source: Central Bureau of Statistics, *Economic Indicators*, various issues.

minus 10 percent in 1998 and the exchange rate would be Rp10,000 per US dollar by the end of 1998. The budget deficit is predicted to reach 8.5 percent of GDP in the fiscal year 1998/9 (ending in March). Despite large amounts of subsidies (6 percent of GDP) to control prices of state-sector products, the actual inflation rate is expected to hover between 80 and 100 percent in 1998. Both the current account and capital account are expected to be in deficit despite considerable support provided by the international community. The current account balance is expected to improve somewhat mainly because of the immediate impacts of expenditure cuts and the depreciation of the rupiah on import reductions rather than because of increasing exports. The agreements reached in Frankfurt in June 1998 regarding private sector external debts are expected to ease external pressures.

A. Exchange Rate Movements

The exchange rate is the single most important relative price in the economy. In a more open economy, monetary transmission operates through the exchange rate effects on net exports and the interest rate effects on financial portfolios. The exchange rate policy[1] in Indonesia,

[1]The exchange rate policy includes devaluation, speeding up the depreciation of the rupiah, widening the intervention band, and raising transaction costs in the foreign exchange market.

TABLE 3

INDONESIA: EXPORT VALUE BY COMMODITY GROUP

	1990	1991	1992	1993	1994	1995	1996	1997
				in billions of US$				
Total Exports	25.68	29.14	33.97	36.82	40.05	45.42	49.81	53.55
Agriculture	2.08	2.28	2.21	2.64	2.82	2.89	2.91	2.88
Industrial Product	11.88	15.07	19.61	22.94	25.70	29.33	32.12	35.30
Forestry base product[a]	3.48	3.87	4.53	6.01	5.86	6.00	6.09	5.64
Garments & Textile	2.93	4.08	6.06	6.18	5.80	6.20	6.55	5.27
Electronics	0.29	0.67	1.10	1.64	0.72	0.92	1.41	1.37
Mining and Minerals	0.64	0.89	1.45	1.46	1.80	2.69	3.02	3.11
Others Sector	0.01	0.01	0.02	0.03	0.04	0.05	0.04	0.66
Total non-oil exports	14.60	18.25	23.30	27.08	30.36	34.95	38.09	41.94
Oil and Gas Export	11.07	10.89	10.67	9.75	9.69	10.46	11.72	11.60
				as percentage of total exports				
Total Exports	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture	8.1	7.8	6.5	7.2	7.0	6.4	5.8	5.4
Industrial Product	46.3	51.7	57.7	62.3	64.2	64.6	64.5	65.9
Forestry base product[a]	13.6	13.3	13.3	16.3	14.6	13.2	12.2	10.5
Garments & Textile	11.4	14.0	17.8	16.8	14.5	13.7	13.2	9.8
Electronics	1.1	2.3	3.2	4.4	1.8	2.0	2.8	2.6
Mining and Minerals	2.5	3.1	4.3	4.0	4.5	5.9	6.1	5.8
Others Sector	0.0	0.0	0.1	0.1	0.1	0.1	0.1	1.2
Total non-oil exports	56.9	62.6	68.6	73.5	75.8	77.0	76.5	78.3
Oil and Gas Export	43.1	37.4	31.4	26.5	24.2	23.0	23.5	21.7
				percentage of annual growth				
Total Exports	15.9	13.5	16.6	8.4	8.8	13.4	9.7	7.5
Agriculture	7.2	9.5	-3.1	19.5	6.6	2.5	0.8	-1.3
Industrial Product	7.7	26.8	30.2	17.0	12.0	14.1	9.5	9.9
Forestry base product[a]	7.9	11.1	17.0	32.7	-2.4	2.4	1.4	-7.3
Garments & Textile	46.3	39.1	48.7	2.0	-6.2	7.0	5.6	-19.6
Electronics	50.5	133.9	64.0	49.2	-56.2	28.5	53.0	-2.9
Mining and Minerals	26.4	39.8	63.4	0.8	23.0	49.5	12.2	3.0
Others Sector	10.3	35.9	108.0	38.1	54.4	19.2	-22.6	1751.7
Total non-oil exports	8.3	24.9	27.7	16.2	12.1	15.1	9.0	10.1
Oil and Gas Export	27.5	-1.6	-2.1	-8.7	-0.5	8.0	12.0	-1.0

Note: a) Comprise of processed wood, and paper and paper goods.
Source: Central Bureau of Statistics, *Economic Indicators*, March 1998.

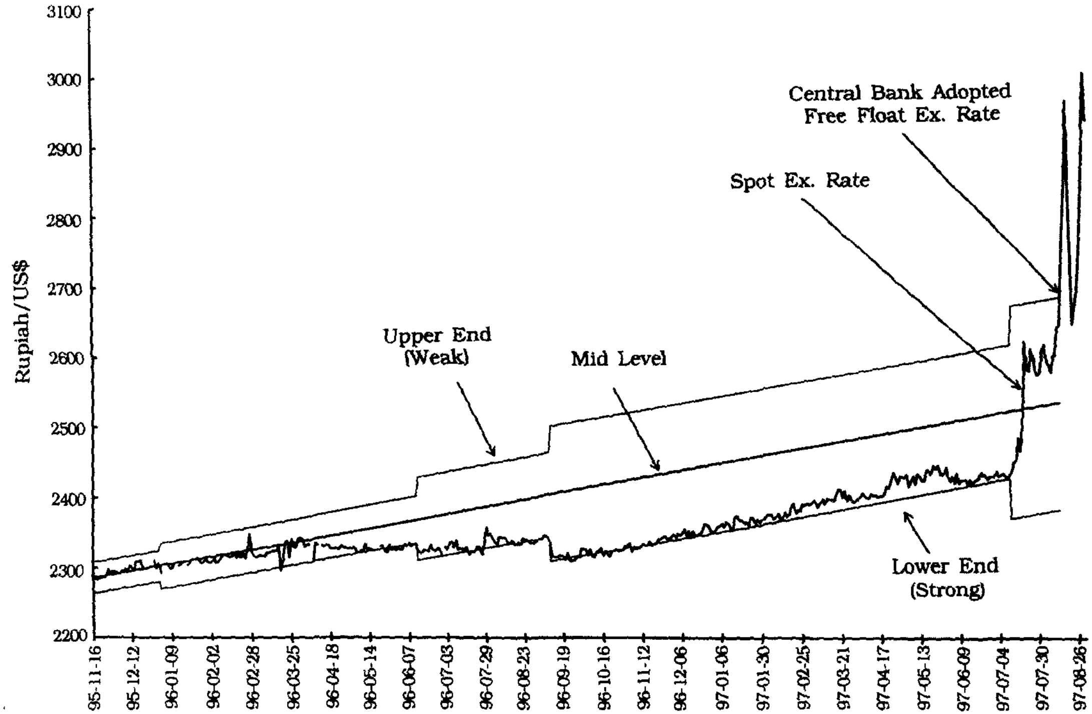
jointly with other policies, had traditionally been used mainly to remove distortions in the domestic economy and to help safeguard international competitiveness. Until recently, the authorities avoided the use of prolonged nominal and real exchange rate overvaluation as a principal instrument for generating fiscal revenues and curbing domestic inflation and interest rates.

To offset the 'Dutch disease' effect of the oil boom, in November 1978, the authorities devalued the rupiah by 50 percent against the US dollar and replaced the US dollar as its external anchor with an undisclosed basket of major currencies and moved to a managed floating exchange rate system. The weight of the US dollar in the currency basket remained substantial. The rupiah was further devalued by 40 percent in June 1983 and by another 31 percent in September 1986. In normal cases, the authorities target nominal depreciation of the rupiah against the dollar between 3 to 5 percent per annum. Bank Indonesia intervenes in the foreign exchange market by buying and selling the rupiah within an 'intervention band' around the central rate. Provided that the system is supported by other policies, such an active policy to stabilize real exchange rate also helps avoid major macroeconomic crises even when the world economic environments turn inhospitable.

To allow market forces a greater role in setting the exchange rate, Bank Indonesia widened the intervention band six times since 1992 to 12 percent effective from July 1997 (Figure 1). In theory, such a greater exchange rate flexibility should introduce uncertainty that may well discourage parts of the purely speculative capital flows and allow higher degree of freedom for the monetary authorities to exercise control over monetary aggregates. As it allows a temporary slight appreciation of the rupiah, the policy should also reduce the need for sterilization of the surge in capital inflows.

The floating exchange rate system is the most flexible and realistic mechanism for a relatively large country with large share of non-traded sector in its economy, like Indonesia. This was the main line of objection to the currency board system proposed to President Suharto by Dr. Steve Hanke, an American economist.[2] The only responsibility of the monetary authorities, under the currency board

[2]The unconfirmed rumours say that Dr. Steve Hanke was introduced to President Suharto by his children.



Source: Bank Indonesia, *Indonesian Financial Statistics*, various issues. *University Of British Columbia Data Base*, Canada.

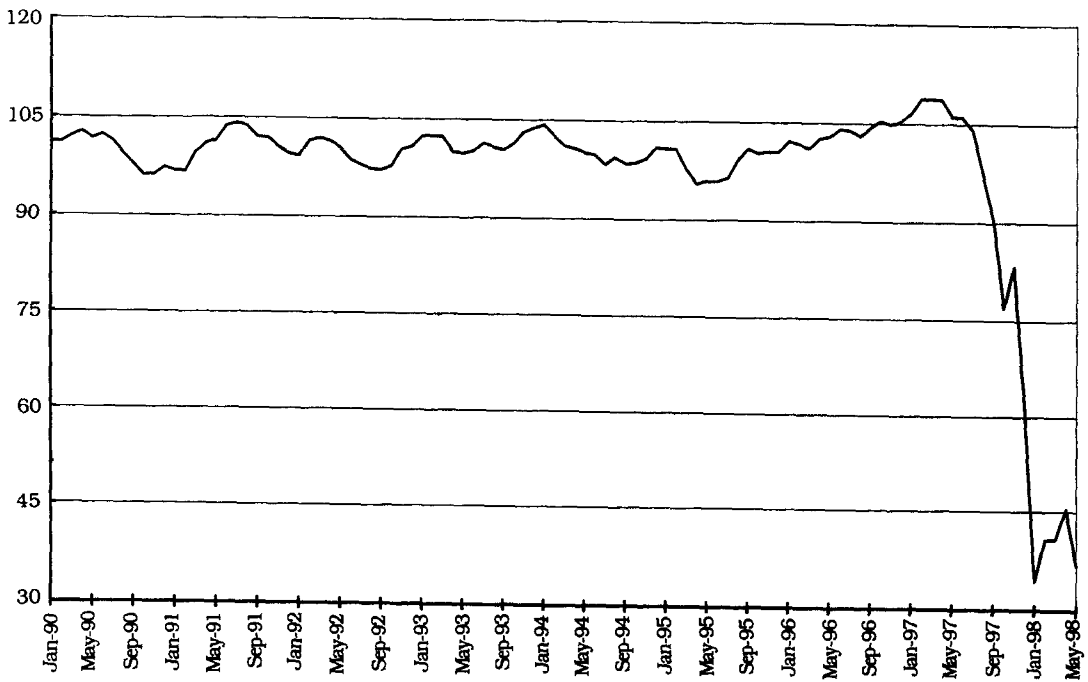
FIGURE 1

INDONESIA: RUPIAH EXCHANGE RATE AND ITS INTERVENTION BANDS, NOVEMBER 1995 - AUGUST 1997 system, is to peg external value of the rupiah to an international currency. This constrains monetary policy to operate according to the principle of gold standard. In this context, the money supply is contracted in response to a deficit in the balance of payments. A decline in the terms of trade caused by a fall in the prices of oil and a rise in interest payments of external debts, as now is happening in Indonesia, requires an adjustment program to suppress domestic expenditures and to encourage non-oil exports. In order to carry out such a policy measure, the price of traded goods must increase relative to non-traded goods. Depreciation of the domestic currency in a floating exchange rate system is an effective mechanism to achieve necessary adjustments. The alternative is a combination of devaluation of the pegged exchange rate and a fall in domestic prices brought about by a recession. The current experience of Indonesia indicates that these policies are traumatic and painful in terms of both unemployment and lost output.

The adjusting factors of an active management of exchange rate policy have been rising domestic inflation rate and interest rates. The pressures for rising inflation rate has been partly suppressed by government's policy to run 'budget surplus' or to narrow the budget deficit, the policy to subsidize prices of state-sector products[3] and to adopt a more vigorous trade liberalization program. Trade policy reform and productivity gains generated by the economy-wide reform will help relax the supply constraints and check the inflationary pressures. With regard to interest rates, until recently, the authorities imposed a complicated system of credit ceilings and direct control on allocation of banks' credits as well as on deposit and lending rates. The selective credit policy helps support allocation of resources as set by the authorities, including allocation to projects favored by the remaining import-substitution industrialization (ISI) policy and the executing firms.

Figure 2 which shows a steady appreciation of the rupiah between 1990 and 1996 indicates a slight change in government policy with respect to the exchange rate. The rupiah appreciation is also due to the rising value of its main external anchor, the US

[3]These include staple foods (such as rice, sugar and wheat flour), building materials (such as Portland cement), energy (such as electricity and petroleum products) and services (such as transportation fares and school tuition).



Source: JP MORGAN, *Emerging Markets Data Watch*, various issues.

FIGURE 2

INDONESIA: REAL EFFECTIVE EXCHANGE RATE INDEX

JANUARY 1990 - MAY 1998 (1990 = 100)

dollar, against the Japanese yen. The rupiah appreciation helped reduce inflation rate and interest rates in 1996. It, however, eroded external competitiveness of the economy, distorted saving and investment decisions and squandered savings on unproductive investment projects, impeding the efficiency of the economy at the micro level. The decline in inflation rate, on the other hand, helps check the rupiah appreciation.

B. Widening Current Account Deficit

Having been maintained at below 2 percent of annual GDP in 1993 and 1994, the current account deficit rose to 3.6 percent in 1995 and 3.7 percent in 1996. This deterioration did not only reflect higher investments. Table 1 shows that the widening current account deficit between 1990 and 1996 was the result of an increase in the overall investment—from 28.4 to 33.4 percent of GDP. One of the links was the banking system, which converted part of the increased liquidity into loans to finance investments, including those in land-based industry (hotel and tourist resorts, amusement and industrial parks, real estates, commercial buildings and shopping malls), excessive infrastructure and other non-tradables. Most of the private debts were directly borrowed from foreign lenders and only a small fraction was intermediated through the banking system.

Parts of the capital inflows were, probably, used for financing consumption expenditures. This is partly shown by a slight decline in savings rate in the national account data. In addition, there was a rapid increase in the number of credit card issues and the volume of transactions using them. In the fiscal year 1996/7, the number of credit cards issued to 1.6 million or grew by nearly 30 percent as compared to 28 percent in the preceding year. In the same year, the value of transactions using credit cards amounted to Rp4.7 trillion or grew by over 35 percent as compared to 22 percent in the previous year. As of now there are 17 banks and 84 finance companies (operating with 40,000 merchant outlets throughout the country) licensed in credit card business.

The widening external deficit partly reflected irresponsible fiscal behavior. A combination of greater efforts at tax collection, tightening of fiscal policy and improvement in the operations of state-owned enterprises has reduced government budget deficit and increased public sector savings. Formally maintaining the 'balanced budget principle', in reality, the government has been running an annual budget surplus between 0.2-0.8 percent of GDP since fiscal year 1993/4.[4] Evidence suggests that the Ricardian equivalence effect—which points to the possibility that the increase in public saving is offset by a decline in private saving—has been relatively marginal in the Asian region, including Indonesia (Faruqee and Husain 1995). The increase in public saving immediately raised national saving and thus helped reduce inflation and interest rates and the current account deficit. Lower interest rate differential slowed down capital inflows. As a result, the widening of tax base, removal of egregious marginal tax rates and significant improvements in the efficiency of tax administration and operations of the public companies have made an important contribution to enhancing fiscal flexibility and helped stabilize domestic aggregate demand and improve external competitiveness.

Prior to the present crisis, there were two sound fiscal measures adopted by the authorities to reduce the burden of repayment of external debts. One was to ease external debt repayment by using the proceeds from privatization of state-owned enterprises to retire expensive external debts which carried interest rates exceeding 10 percent per annum. Since the 1994/5 fiscal year, the government prepaid $1.5 billion of such high-cost debts, reducing the amount of outstanding public debts by 2 percent. The other was to reduce reliance on external borrowing by introducing an expenditure-reducing policy, particularly measures to restrain public investment demand and consumption.

Traditionally, the structure of the cut in public expenditures was designed to protect activities which were likely to produce high rates of return and crucial for long-term growth. These include investments in essential economic infrastructure projects and in human resource development. As public expenditures are mainly spent more on such non-traded goods, the structure of the cut in public budget also helps avoid appreciation of the real exchange rate (Reisen 1996). This rule, however, was violated to some extent as the authorities protected investments in strategic industries, the national car program and excessive infrastructure projects, that required high protection from imports, and required much foreign

[4]This is lower than the fiscal surplus of 2% of GDP as suggested by the World Bank (1996).

capital and skilled manpower.

The budget 'surplus', however, was not enough to counter the rapid expansion of the 'off-budget expenditures' and government sponsored projects. There is no information on the 'off budget expenditures', but the list of projects financed by it rapidly expanded. This included the aircraft and national car industries.[5] Capital inflows into such highly protected sectors generated welfare losses because aside from producing negative value added at international prices, they also remove resources in the form of repatriated profits from the country. Fiscal position became more difficult because of the revenue losses stemming from the introduction of tax incentives for the national car program and other pioneer projects owned by the politically well-connected business groups and the tax-deductible status of individual contributions to the poverty alleviation initiatives such as Takesra, headed by the President.

C. Stock of External Debts

The level of Indonesian external debts was alarming by world standards. Debt service ratio ranged between 30 to 34 percent between 1990 and 1996. Mainly because of the surge in private sector borrowings, the stock of external debts of Indonesia rapidly increased from $66.9 billion in 1990 to $133.69 billion or around 200 percent of export value or about two thirds of GDP in 1997. Of

[5]The national car policy was promulgated in the Presidential Instruction No. 2/1996 which gave a 'pioneer' status to PT Timor Putra Nasional. This exclusive status exempted the company from paying 65% maximum import duties for car spare parts, 35% maximum import duty and luxury goods sales tax that made up over 60 percent of the cost of car production in Indonesia. While completing its own production and assembly capacity in Indonesia, the company was allowed to import the first 45,000 units of built-up cars from Kia of Korea. To boost the sales of the cars, the public sector was required to buy them. In return, the company promised to manufacture in stages the national car with the use of local components, beginning at 20 percent in the first year of its operation, over 40 percent in the second year and over 60 percent in the third year. Fully backed-up by the government and Bank Indonesia, a consortium of 4 state-owned banks and 12 private domestic banks extended a $960 million credit to the company for building car production and assembly facility. PT Timor Putra was jointly owned by Mr. Hutomo Mandala Putra, the youngest son of President Suharto, and Kia Motor Corporation of South Korea.

this, about half were public medium- and long-term debts and about $67.67 billion were short-term loans. Most of the short-term external debts ($49.3 billion) were borrowed from foreign banks, of which $29.6 billion were with maturity of one year and the other were with maturity over one year (J.P. Morgan, *Global Data Watch*, 16 January 1998, p. 70). The average maturity of the external debts were approximately 1.5 years. In addition, there were short-term external debts denominated in local currency amounting to $15 billion. Interest payments amounted to 12 percent of total exports.

Over two-thirds of the bank loans ($32.6 billion) were made to the non-financial private sector, around 39 percent ($19.1 billion) to the central bank for building up its foreign reserves, $10.1 billion to the financial sector and $6.5 billion to the public sector. Most of the private sector external borrowings, however, were explicitly and implicitly guaranteed by the state. These included foreign borrowings for financing economic infrastructure projects, mainly owned by politically well-connected groups.

To control the size and structure of capital inflows, the authorities in October 1991 re-imposed special quantitative ceilings on offshore borrowings of the public sector at large, including state-owned enterprises. The ceilings were also applied to offshore borrowings of the private sector which relied on public entities for their bankability. The control was implemented by Bank Indonesia regulations which set the ceilings on commercial borrowings by itself, state-owned and private-owned foreign exchange banks, and state-owned and private companies for the five fiscal years ending in 1995/6. Bank Indonesia established the queue system to maintain and use the ceilings and abolished implicit subsidies on the premium of exchange rate swap facilities. The banks were fined for failing to report external borrowings and exceeding their ceilings and net open position requirement. Effective from April 1, 1997, at least 80 percent of the offshore borrowings has to be channeled to export related activities.

III. The Banking Crisis

In terms of total assets and number of offices, the banking system is the core of the financial sector in Indonesia (Nasution 1996). The reform in the banking system started in June 1983 by liberalizing interest rates and the complicated ceiling cum selective credit policy with subsidized interest rates. Other elements of financial repression were removed with the market liberalization introduced in October 1988. The reform ended the financial market segmentation and improved market competition. The increase in market competition in banking industry came from four factors: first, from the newly established banks and the rapid expansion of their branch offices, second, from foreign financial institutions through their branch offices in Indonesia and overseas, third, from non-bank financial institutions (NBFIs) as the reform removed the traditional functional specialization of financial institutions, and last, from rapidly expanding capital markets, both equity and bond markets.

The banking system is, however, simply bankrupt because capital base of the commercial banks is relatively inadequate to cover the high proportion of bad loans which are partly inherited from the long periods of financial repression. Capital base of the banks was also relatively low throughout those periods. The bad debts increased further after the banking reform, because of the weakness in the implementation of the new prudential rules and regulations.

A. Surges in Capital Inflows and Lending Boom

The banking reforms caused excessive credit expansion by the banking system. On average, outstanding credit of commercial banks increased by over 24 percent per annum between 1992 and 1997 (Table 4). A combination of lifting restrictions on bank lending and regulations on asset portfolios, lowering reserve requirements, market opening, privatization, and greater access to offshore markets encouraged rapid credit expansion. The presence of new entrants in a more competitive market environment also increased the pressures on banks to engage in riskier activities. Yet bank credit officers, reared in an earlier controlled environment, did not have the expertise needed to evaluate new sources of credit and market risk. When the economy is booming, it is difficult to distinguish between good and bad debtors because most borrowers look profitable and liquid. Lifting restrictions on bank lending immediately expands credit to land-based industry and excessive

TABLE 4

INDONESIA: MONETARY SURVEY

(in billions of Rupiah, unless otherwise indicated)

	1990	1991	1992	1993	1994	1995	1996	1997
Assets								
Foreign Assets (Net)	10659	17283	29544	28489	24390	30258	50912	67985
Domestic Credit	95898	114002	130030	157396	193458	235356	288788	407301
Claims on Government (Net)	-12024	-12711	-6547	-11848	-14292	-19235	-20922	-45543
Claims on Official Entities	7709	9706	6019	6505	6874	8427	9248	20612
Claims on Private Sector	100214	117007	130558	162739	200876	246164	300462	432232
Liabilities								
Money	23819	26693	28801	36805	45374	52677	64089	78343
Quasi-Money	60811	72717	91570	109402	130280	171257	224543	277300
Import Deposits	1074	990	1752	1699	1541	1779	2099	1419
Other Items (Net)	20852	30885	38767	40516	40970	41297	48969	118224
Rate of Growth Money Supply (% per year)								
M1 (Narrow Money)	15.9	12.1	7.9	27.8	23.3	16.1	21.7	22.2
M2 (Broad Money)	44.6	17.5	21.1	21.5	20.1	27.5	28.9	23.2
Rate of Growth Bank Credit (% per year)	54.2	16.3	8.9	22.3	25.7	24.2	24.9	29.1
State Foreign Exchange Banks	35.2	11.8	14.0	4.8	11.8	16.8	16.5	40.7
Private National Banks	88.1	19.6	1.2	42.8	42.8	29.4	34.3	12.5
Foreign & Joint Venture Banks	98.3	37.8	9.6	57.9	24.7	32.0	13.8	76.2
Regional Dev. Banks	41.7	13.6	15.3	17.9	18.2	24.8	23.2	16.8
Memorandum items:								
1. Dollar deposits at DMB as % of M2	17.3	20.2	19.1	17.5	17.5	17.4	17.2	25.6
2. Credit in dollar as % of total credit	12.2	15.6	17.9	19.4	19.1	19.5	19.9	30.8
3. % of total excess liquidity of DMBs held in US$	3.5	3.6	6.9	13.6	9.3	6.8	2.7	n.a.
4. The role of SBI in total market instrument (%)	100.0	71.6	88.0	94.4	79.7	73.8	78.7	n.a.
5. Deposit rates (3 month, % p.a)	21.0	23.4	19.5	14.5	12.6	16.8	17.2	20.3
6. Lending rates (working capital, % p.a)	21.0	25.2	24.1	20.5	17.8	18.9	19.2	22.0
7. Interest rates differential (6-5) (%)	0.0	1.8	4.5	6.0	5.1	2.1	2.0	1.7

Sources: Bank Indonesia, *Indonesian Financial Statistics*, various issues.
IMF, *International Financial Statistics*, various issues.

infrastructure projects. Parts of this credit expansion are financed by foreign borrowings. In addition, the surge in private capital inflows relative to the size of equity market drives up equity prices.

The financial sector reform relaxed requirements for domestic banks to deal in foreign exchange transactions and to open branch offices overseas. It also allowed greater penetration of foreign banks in domestic economy and larger ownership of foreign investors on domestic assets. Moreover, the new rules and regulations replaced the administrative ceilings on offshore borrowings of commercial banks with a more rational system of net open position. Along with privatization, the authorities abolished the limits for inflows of FDI and foreign ownership of equities issued in domestic stock markets. Prior to the recent reform, Indonesia, in 1971, adopted a relatively open capital account and managed an unitary exchange rate.[6] Under this system, there was no surrender requirement for export proceeds or taxes or subsidies on the purchase or sales of foreign exchange. Indonesian citizens and foreign residents were free to open accounts either in the rupiah, the national currency, or in foreign currencies at the authorized banks ('*bank devisas*'). These banks were authorized to extend credit in foreign exchange in domestic market.

To encourage influx of foreign investments, between January 1979 and December 1991 a special effective exchange rate was made available to domestic borrowers by providing an explicit subsidy on the exchange rate. The subsidy was extended through the exchange rate swap facility. Under this facility, Bank Indonesia provided forward cover for foreign-exchange borrowing contract swaps to banks and NBFIs, and customers with foreign-currency liabilities. The subsidy came about because of the time lag in either upward adjustment of the swap premium or nominal depreciation of the rupiah, or combinations of both.

Herd behavior of foreign investors also played a role in increasing capital flows to and from Indonesia. They bought stocks, commercial papers and even real estates, and invested in excessive infrastructure projects. Peregrine, a Hong Kong based investment

[6]The open capital account system was adopted partly because Indonesia had no effective and efficient bureaucracy to administer capital control. Singapore, the regional financial center, is located right in the middle of the archipelagic country of Indonesia which consists of more than 17 thousand islands.

bank collapsed in early January 1998 due to a single massive bad loan ($265 million) to PT Steady Safe, a local taxi company in Jakarta. Steady Safe used $145 million to buy 14 percent of a toll road building company owned by Ms. Siti Hardiyati Rukmana (Tutut), the eldest daughter of President Suharto. She was then named to Steady Safe's board ("The hunt is over," *Time*, 26 January 1998, pp. 14-6).

The reform which covered nearly all aspects of the economy, combined with the perception of Indonesia as a stable country and one of Asias success story,[7] generated a massive capital inflows since the early 1990s. Demand for securities issued by Indonesian (state-and private-owned) companies increased as foreigners were allowed to own up to 49 percent of the listed shares issued by national companies (except banks). The national companies were also allowed to raise funds by selling securities in stock and bond markets, both international and domestic. Capital inflows were encouraged further as domestic interest rates (adjusted for relatively limited actual exchange rate movements) rose and were sustained through the 1990s. The amount of capital inflows increased by almost two and a half times since 1990, reaching the level of $14.7 billion in 1994.

[7]During the past quarter-century since 1969, the economy has grown on average by 6-7 percent a year, with an annual per capita GDP growth of over 4 percent. Non-oil GDP (covering the economic sectors toward which most capital inflows are directed) grew by 7.7 percent annually between 1991 and 1995. Along with this rapid rate of economic growth, the number of population living in absolute poverty fell to 15 percent in 1990 from 29 percent in 1980 and 60 percent in 1970. The rapid economic growth has coincided with a major shift in the structure of the economy from one highly dependent on a small group of primary commodities, particularly oil and natural gas, to one with a wider range of primary commodities and manufactured products. The development strategy which promoted investments and non-oil exports is partly reflected on the large share of capital goods and raw materials in the total import of goods and services. The increasing openness of the economy to international markets and the broadening base of export raised the capacity of the economy to service externals debt as debt service absorbed a lower fraction of total exports. Moreover, diversification of non-oil export products has significantly reduced the vulnerability of its export revenues to commodity price swings.

B. Increasing Bank Liabilities with Large Maturity/Currency Mismatches

A combination of the liberal capital account, financial sector reform, advances in technology and information processing made it easier for Indonesians to alter currency composition of their deposits. The high ratios of broad money (M2) to GDP, the dollar deposits to M2, credits in the dollar to the total credit, and excess liquidity of commercial banks held in the US dollar (Table 1 and Table 2) all indicated the high percentage of debt instruments in Indonesia denominated in foreign currencies, particularly the US dollar. As emphasized by Calvo (1994) and Mishkin (1997), this made it more difficult to manage both the banks' portfolios and the macroeconomy. Pursuing an expansionary policy, for example, was likely to cause devaluation of the rupiah and a rise in inflation rate.

Traditionally, Indonesian banks and bank customers borrowed short and lent long with high debt-equity ratios. When domestic interest rates are high, there is a strong temptation for them to denominate debt in foreign currencies. *Bank devisas* (which are licensed to deal in foreign exchange transactions) turn to short-term, foreign-currency-denominated borrowings in the interbank market to fund longer-term bank loans. The ratio of external liabilities of the commercial banks to their assets rose from 9.5 percent in 1993 to over 18 percent in March 1998. External borrowings of the financial sector in Indonesia rose from \$6 billion in 1993 to \$12.1 billion in 1995, and down to \$11 billion in 1996 and to \$10.1 billion in mid-1997.[8] Between December 1996 and December 1997, the rupiah sharply declined from Rp2,383 to Rp5,652 to the dollar and the foreign currency denominated liabilities of commercial banks operating in Indonesia increased from Rp27 trillion to Rp55 trillion.

Partly because of historically predictable and low rate of the rupiah depreciation, a large portion of the external debts were unhedged. This not only made banks and their customers more vulnerable but also made it harder to deal with the banking crisis, the rise in interest rates and sharp devaluation of the rupiah. Sharp depreciation of the rupiah deteriorated banks' and firms'

[8]J.P. Morgan, *Emerging Markets Data Watch*, 1 July 1997, p. 3 and *Global Data Watch*, 16 January 1998, p. 70.

balance sheets because much of their debts were denominated in foreign currencies. The substantial fall of the external value of the rupiah to the dollar rapidly raised the cost of renewing or rolling over the short-term floating rate dollar or yen loans in real terms. The indebtedness of Indonesian banks and firms rose and their networth fell. Vulnerability of banks increased in line with the decline in their capacity to absorb negative shocks because of currency and maturity mismatches. The rise in interest rates caused interest payments to rise, resulting in a deterioration in balance sheets of the banks and their customers.

The risks of maturity mismatches were higher for the unlisted banks which had no access to mobilize long-term sources of funding (by selling bonds, shares and other types of securities) in stock markets. Selling equity in stock markets also worsened the crisis. The risks were higher as most companies in Indonesia relied exclusively on bank loans for financing while land was the main collateral of credits. Only a handful of them supplemented bank financing with equity offerings. The high loan-to-value ratio of bank loans to companies, such as property developers, exposed Indonesian banks to a sharp decline in real estate prices. This and the plunge in equity prices depressed the market value of collateral and assets of the banks. The liquidity problem became more difficult because there was no securitisation of mortgages nor a market for government bonds.

C. Weak Financial Positions of Banks and Highly Concentrated Problem Loans

Liberalization of the banking industry will surely produce long term benefits for Indonesia. In the short run, however, deregulation inevitably presented banks with new risks which, without proper caution, led to the current banking crisis. Despite relatively high economic growth of 6 percent or more per annum since 1990, the problem of bad loans in the national banks appear not to have diminished significantly. The problems are likely to be more severe at the state-owned bank group and non foreign exchange banks (World Bank 1996). The state-bank group was the main provider of credit programs, with subsidized interest rates, during the past long era of financial repression. This group of banks was also the main victim of erratic government policies, such as shifting of public deposits from these banks to the central bank.

Close to 12 percent in 1995, the actual average risk-based capital ratios of all commercial banks in Indonesia were higher than the Basle minimum standard of 8 percent. Nevertheless, according to the World Bank (1996), there were 22 banks (out of the total of 240 banks in mid-1995) that did not meet the capital adequacy ratio and 65 others that did not meet the legal lending limit regulations. The latter restricted aggregate amount of loans and advances to insiders, a single borrower (person or firm) or to a group of borrowers.[9] Traditionally, state-owned banks were under-capitalized. The low capital requirements in the past were hardly enforced for this group of banks because of the presumption that the state would stand by its banks and insolvency of state-owned banks would be carried through by the fiscal balance.

Overstaffing and overextended branch networks were also more prevalent for the state owned banks. Because these banks were protected from closure on constitutional grounds and had their losses covered by the public budget, state-owned banks tended to have lower incentives to innovate and promptly identify problem loans at an early stage and to control costs. As risks of state-owned banks were assumed by the state, lending skills (including risk appraisal) of the officers of these banks were generally weak. Their loan loss performance was usually inferior to that of their private counterparts.

D. *Heavy Government Involvement in the Selection of Credit Customers*

Despite privatization, the six state-owned banks (Bank Bumi Daya, Bank BNI, Bank Exim, Bank Rakyat Indonesia, Bapindo and Bank Tabungan Negara) still retain significant proportion (over 30 percent) of bank assets in Indonesia. This figure would be even higher if computed under a broader definition of indirect ownership,

[9]Through networks of ownership and business and management inter-locking, all the domestic private banks were closely connected to large business conglomerates. The collapse of a number of large conglomerates since 1990 indicated that certain sectors within conglomerates could become burdensome, partly because of their strategy to be highly leveraged, which might have been suitable in the past era of subsidized interest rates and highly protected domestic markets (Nasution 1995, pp. 185-6).

as Bank Indonesia, state-owned banks, ministries and various branches of the armed forces also own banks. The banking system with relatively high state ownership shows greater intrusion of the political objectives of government in almost all aspects of bank operations including personnel and technology policies. Concurrently, such a banking system also shows greater recourse to the public financing of bank bailouts.

For decades, loan decisions of state-owned banks have been subject to explicit or implicit government direction. All too often, creditworthiness of borrowers did not receive sufficient weight in credit decision, with the result that loans of state banks were mere vehicles of extending government assistance to particular industries and a handful of politically well-connected business groups. These groups of large companies – the conglomerates – control a large proportion of GDP and vast range of mainly rent-seeking activities. Deregulation did not end the government interventions in lending decisions of state-owned banks and financial companies. These were shown by direct interventions of the government in providing credits to Mr. Edi Tansil and to PT Timor Putra Nusantara, which happened after the banking reform and allegedly by those who had promoted it.

E. Bad Governance

Along with the market liberalization, the financial sector reform also adopted, in February 1991, a more restrictive CAMEL (capital adequacy, asset quality, management, earning, and liquidity) system to regulate and supervise banks. Indonesia adopted a set of rules and regulations on legal lending limits to limit loans extended to banks insiders (owners, managers and their related businesses). The implementation of the prudential rules and regulations were, however, very weak. This was partly because of structural weaknesses in the legal and accounting system. The regulators and bank managers did not have sufficient personnels to supervise and examine the fast growing number and expanding powers of financial institutions. In an autocratic political system like Indonesia, there is a principal-agent problem, as regulators may operate more to the interest of the rulers than to that of the people. The case of commercial papers issued by PT Bank Pacific, PT Bank Arta Prima and PT Bank Perniagaan points to fraud and collusion involving even the bank supervisors at Bank Indonesia, the central bank. Four bank supervisors at Bank Indonesia were arrested in early August 1997 for allegedly receiving bribes while making inspections during 1993-6 (*The Jakarta Post*, 28 August 1997). As indicated earlier, the corruption of officials may have also tainted the use of Bank Indonesia funds to buy shares of problem banks and to provide low cost and low risk liquidity credit to such banks. Under-regulated banks lead to excessive investments by the economy as a whole (McKinnon and Pill 1966). Moreover, many private banks belong to business conglomerates and do not act tough on affiliated companies, particularly when they can expect assistance from the central bank. Attaching collateral is a costly and time consuming process, thereby reducing the effectiveness of collateral in solving adverse selection (Mishkin 1997).

F. Lender of Last Resort

At present, Indonesia has neither a deposit insurance scheme nor a bailout program to provide support to domestic banks when they face bank runs. Bank Indonesia, however, provides support programs on an ad-hoc and non-transparent basis. The support includes capital injections, liquidity credit and emergency financial supports. To strengthen primary (Tier I) capital of commercial banks, Bank Indonesia acquires shares of problem banks and provides them with equity capital. The rapid growth of Bank Indonesia's supports to distressed banks is reflected in the rapid growth of claims of the monetary system on the private sector (Table 4), which include claims of the central bank on commercial banks.

A combination of weak market infrastructure, misfeasance, malfeasance and malversation has allowed certain individuals to use their banks to swindle deposits of the general public, equity share and liquidity credits from the central bank and the public sector, and to issue fake commercial papers and obtain offshore borrowings, without proper back-ups, for financing questionable projects of bank owners.

Loans of weak banks are mainly made to non-bank companies owned by the principal owners of the banks for financing investment projects, usually, at inflated prices. Liabilities of such banks are mainly deposits of the general public, liquidity credits from Bank Indonesia and unsecured commercial papers sold to the general public (including foreigners) and equity shares owned by Bank Indonesia and other state-related institutions. The last category includes state-owned pension funds (*PT Taspen*-civil servants' pension fund) and insurance companies (such as *PT Jamsostek*-workers social insurance), private pension funds and other financial resources self-administered by state-owned enterprises and their cooperatives. The networth of such a typical bank (assets minus liabilities) is really negative.

News reports indicated that financial problems of the recently suspended banks had already been there for a long time. Their survival relies solely on new injection of financial resources from the central bank. The reports also indicated Bank Indonesia was acting only as the lender of last resort to state-owned banks and to the politically well-connected institutions. Other state-owned enterprises were also under the direction of the government to invest and place deposits in banks and enterprises owned by the politically well-connected conglomerates. Providing distressed banks with lender of last resort funding (and with sources of funding from other public sectors) on a continuous basis often committed Bank Indonesia and the public sector to lend money to institutions that had no capital. Owners had no incentive to use the new money wisely because they had nothing to lose. Aside from providing equity capital and credits, Bank Indonesia also arranged mergers, consolidation and take-overs of problem banks either by stronger institutions or new investors.

Under a currency board system, the central bank can no longer play the role of the lender of last resort. Currency board proposal has a merit as it automatically stops credit to distressed banks. Nevertheless, temporary financial support is often vital for banking stability in coping with panics.

IV. The Policy Responses

Before shifting to the present exchange rate regime, Bank Indonesia had tried to defend the moving band system from the speculative attacks in July 1997 by widening the intervention band and selling foreign exchange both in forward and spot markets and using sterilizing operations. To support these policies, the authorities also introduced a wide array of tight monetary policies along with administrative measures to limit external borrowings of commercial banks, discourage short-term capital inflows while maintaining open access for the economy to long-term capital, particularly FDI.

At the end, Bank Indonesia had to abandon the moving band system, adopted in 1992, in order to defend its foreign exchange reserve position. This was partly because, until recently, there had been no clear signal issued by the authorities on how to solve the core of the problems: private sector external debts and banking crises, and promoting growth by improving the efficiency of the economy and boosting non-oil exports.

Confidence of domestic and international communities on macroeconomic management was sharply eroded because of government indecisiveness to implement the IMF rescue packages. The excessive infrastructure projects owned by the politically well-connected business groups were shelved in September 1997 but put back in the pipeline in the following months after the availability of new loans under the IMF Program signed in October 1997, and then shelved again under the revised IMF packages signed in January 1998. Moreover, fed up with sliding external value of the rupiah, the authorities toyed with the idea of adopting a currency board system that would peg the external value of the rupiah to a foreign currency and abolish the role of the central bank as the lender of last resort. The third IMF Program announced on April 7, 1998 had to be revised by still another one signed three months later on June 26.

The IMF programs contained a broad outline of macroeconomic policies which included a short-run stabilization program to cut domestic absorption, particularly government spending and investment. The second part of the IMF program covered a broad outline of economic reforms, including trade and investment policies, and financial reforms to dissolve monopolies and open up the economy to foreign competition and capital. The measures also included reforms in market structure to improve market transparency. In contrast to the previous arrangements, the IMF programs of January and April 1998 contained more detailed measures with specific targets and time tables.

A. *Fiscal Distress and Stabilization Program*

The essence of the short-run stabilization program is the fiscal consolidation to eliminate underlying fiscal and quasi-fiscal deficits. The key to this is to raise revenues from taxation and profits of state-owned enterprises. Fiscal consolidation also involves sharp cuts in government expenditures, including subsidies and public investment spending. Moreover, it is important to develop new methods for non-monetary financing of budget deficit in the short-term.

The meltdown of the Indonesian economy and the collapse of its banking system resulted in widening fiscal imbalances and higher inflation rates. The inflationary pressures came from a combination of three sources: (i) the rapid growth of money supply, (ii) erosion of public confidence in economic management, and (iii) the depreciation of the rupiah. The increase in money supply was mainly used for financing the ever-growing fiscal deficit. The loss in public confidence in governments' economic policy raised the velocity of money as shown by the bank runs, the panic buying and the flight from the rupiah.

The roles of the growth in money supply and confidence can be distinguished from the long-run quantity equation of the quantity theory:

$$MV = PY \tag{1}$$

where M = stock of money supply,
V = income velocity of money,
P = general price level, and
Y = the level of real output.

By simple mathematical manipulations, equation (1) can be written in the following form:

$$\Delta P/P = \Delta M/M + \Delta V/V - \Delta Y/Y \tag{2}$$

Equation (2) indicates that inflation increases under following conditions: (a) a rapid growth in the money supply ($\Delta M/M$), (b) a rapidly rising income velocity of money ($\Delta V/V$), and (c) a low growth of real GDP ($\Delta Y/\Delta Y$). During the period of high inflation, it is the monetary factors (M and V) that are dominant in determining the course of stabilization programs. The rate of growth of real output affects fiscal deficit more than the demand for money.

The widening budget deficit is mainly because of the rapid increase in government (fiscal and quasi-fiscal) expenditures. In contrast, government revenues decline in real terms because of economic recession, rising unemployment rate and high inflation rate. The soar in government expenditures comes from debt and non-debt expenditures, particularly from the following items: (a) repayment of public external debts; (b) subsidies on state-sector products; and (c) expansion of social programs, particularly education, health care and public sector programs to absorb unemployment. Contingency liabilities of the government come from three sources: (a) implicit and explicit subsidy on private sector infrastructure projects; (b) the financial losses of IBRA from (i) restructuring ailing commercial banks, and (ii) providing financial blanket guarantee against losses to depositors; and (c) exchange rate subsidy for repayment of private sector external debts.

Just as important as the increase in the public sector deficit was a substantial shift in the financing of the deficit to inflationary sources. Prior to the present crisis, the budget deficit had been financed by: (a) foreign borrowings, mainly official development aid (ODA) from official sources and (b) proceeds from privatization of state-owned enterprises. Because of the availability of these sources of financing, the Treasury did not have to borrow from the central bank. As noted earlier, starting from January 1998, the authorities began to borrow from Bank Indonesia to pay for the operations of IBRA. Printing money to pay for a public deficit appears to be a softer option as raising tax and selling state property and companies are unpopular and unpleasant. Borrowing from domestic and foreign sources are no other than deferred taxation.

B. Banking Restructuring

The weak financial condition of the banking system has limited their capability to extend credits and reduce interest rates. The IMF program contains seven measures to restructure the banking system. First to encourage them to merge[10] rather than letting

[10]The authorities announced, on 31 December 1997, the plan to merge four state-owned banks (Bapindo, Bank Dagang Negara, Bank Bumi Daya and Bank Exim) into one single institution. This was followed by announcements of several private banks, in January 1998, to follow suit. Bank Internasional Indonesia (BII), Bank Dagang Nasional Indonesia (BDNI), two of Indonesia's largest private banks, agreed to merge with three other smaller banks (Bank Tiara Asia, Bank Sahid Gajah Perkasa and Bank Dewa Ruci). Four banks (Bank Duta, Bank Tugu, Bank Umum Nasional, and Bukopin-Bank Umum Koperasi) owned by President Suharto's four

distressed banks to fail. Second, to strengthen the capital base of bad banks by allowing new investors, including foreigners, to inject capital. Foreign institutions are expected to help packaging the bad debts and bring in expertise.

Third, the process of banking restructuring will be guided by the yet-to-be established Indonesian Bank Restructuring Agency (IBRA), an independent agency under the auspices of the Ministry of Finance. IBRA will have two main functions: first, to supervise the banks in need of restructuring and to manage the restructuring process and, second, to manage assets that it requires in the course of bank restructuring. The agency will have a limited lifespan, and will be wound up once the bank rehabilitation program is completed. This will shift the function of the lender of last resort from the central bank to the Treasury. The shift will help prevent the bankruptcy of Bank Indonesia, the central bank, at the expense of rising public budget deficit.

Fourth, to make operations of state-owned enterprises, including state banks, more transparent and accountable. The performance of state-banks managers will be judged according to the criteria detailed in performance contracts. Political corruption can be significantly reduced by making state-owned enterprises more independent and by cutting their links to government bureaucracies.

Fifth, to strengthen Bank Indonesia which was immediately given full autonomy in formulating and implementing monetary policy.

Sixth, market infrastructure, including the prudential rules and regulations concerning the financial system will be improved along with measures to strengthen capability of Bank Indonesia to supervise the banking industry and to enforce the prudential regulations.

Last, to restore confidence of domestic and international communities in the domestic banks, the authorities explicitly provided full guarantee on (demand, saving and time) deposits of all banks in Indonesia. Government guarantee was also extended to cover credits received, guarantees, and letters of credit issued by the banks. The credits received by the bank owners and subordinated debts, however, are not covered by the scheme. In two years, the

foundations are to be merged into one bank. The widely diversified Bakri Group will merge its four banks in February. Tirtamas Group is expected to merge its three banks and Ramako Group will merge its two banks.

scheme will be taken over by the yet-to-be-established Deposit Insurance Scheme, administered by IBRA. In the short-run, the availability of such schemes will reduce bank runs which happened following the disclosure of 16 banks in early November 1997. In exchange for the guarantee, all locally incorporated banks are subject to enhanced supervision. Those which fail to meet Bank Indonesia standards are to be reviewed by IBRA. The scheme is expected to restore confidence of international communities which have refused to accept letters of credit opened by Indonesian banks. In the long-run, however, the credit insurance schemes will create moral hazard problems particularly when there is relatively weak economic infrastructure.

As pointed earlier, at present, the government borrows from the central bank for financing initial operation of IBRA. Over time, as recoveries increase, IBRA will be able to become more self-financing. The participating banks are required to contribute a half-year fee of 0.05 percent of the guaranteed deposits and debts to the government guarantee scheme. The fund used by Bank Indonesia to bailout depositors and creditors will be credited to the government annual budget in tranches for five years.

The combined balance sheet of commercial banks shows that the demand deposits at these banks as of November 1997 stood at Rp356.4 trillions (of which Rp53 trillions in the US dollar valued at the then exchange rate of Rp3,432 per US dollar). There is no information on the size of other bank liabilities, including contingent liabilities. According to Dr. Bijan B. Aghevli, the IMF Deputy Director for Asia-Pacific, the costs of governments guarantee for deposits and debts in the banking sector would be equivalent to between 10 to 12 percent of Indonesia's Gross Domestic Product ("Government guarantees bank deposits," *The Jakarta Post*, 28 January 1998).

C. The Private Sector External Debt

The IMF program of April 1998 addresses problems of the private sector's short-term external debts. Out of $67.67 billion corporate external debts outstanding, about $30 billion fell due in March 1998. In the policy statement issued on January 27, 1998 the government proposed a temporary freeze on servicing private sector external debts. It also made clear that the corporate debt problems should be solved on a voluntary basis between borrowers and lenders. The government would not provide financial resources, subsidies or guarantees to bailout those companies which cannot survive the surging real interest rates and sharp devaluation of the domestic currency. Private sector defaults will be permitted, including in the financial sector as the government would neither rescue those that got into financial difficulties nor guarantee their external debts and repackage them into a government bond issue. As creditors will certainly lose out, this will reduce Indonesia's access to international financial markets as in the case of Peregrine. Some of the losses can be shifted to taxpayers through tax credit in the source countries.

The agreement between representatives of the government and the private sector of Indonesia and the steering committee of foreign lenders was reached in Frankfurt, Germany, on June 4, 1998. According to this agreement, the private sector external debt problems are to be solved modeled after a combination of Mexico's Ficorca program and the Korean scheme. The Korean idea takes the short-term, non-traded debts of Indonesian banks (amounting to $8.9 billion) and restructure them into loans with one- to four-year maturities. Interests on the new loans will be paid based on LIBOR plus margins, ranging between 2.75 and 3.5 percent point, about 50 basis points higher than in the Korean case. The non-bank corporation external debts ($58.79 billion) are rescheduled and restructured along the line of the Mexican program. A trust institution, called INDRA, is to be established by the government of Indonesia and administered by Bank Indonesia. INDRA "will provide exchange rate risk protection and assurance to the availability of foreign exchange to private debtors that agree with their creditors to restructure their external debt for a period of eight years, with three years of grace during which no principal will be payable".[11]

V. Conclusions

Over-investment in non-traded sector and manufacturing industry that required high protection and weak financial system were the roots of the present financial crisis. The crisis was aggravated by

[11] *Joint Statement of the Indonesian Bank Steering Committee and Representatives from the Republic of Indonesia*, Press Release, 4 June 1998.

political uncertainty and lack of government determination to adopt sound macroeconomic management. The investments were funded by massive capital inflows as shown by the widening current account deficit and mounting external debts. Over-investment with lower quality implied less resources were devoted to enhancing productivity of the economy to raise the perceived ability to service and reduce external liabilities. Moreover, the over-investment caused other distortions such as asset overvaluation as was evident from the real estate sector.

The changing composition of the capital inflows significantly added to the vulnerability of the system as a whole. The reason was that because the share of the capital inflows in the form of short-term bank borrowings and portfolio flows invested in the stock market and in private sector instruments was rapidly rising. Surging local interest rates and deep depreciation of the rupiah raised the cost of renewing or rolling over short-term floating rate dollar and yen loans in real terms. To some extent, the authorities influenced both the size and the composition of the volatile short-term capital inflows by imposing ceilings on them and by raising their costs.

The financial system, particularly the banking system, wss plainly dysfunctional because of a combination of the rotten central bank and direct government intervention in selection of banks' credit customers. The private sector banks were also involved in the risk of moral hazard behavior as they did not act tough on their sister companies within the same business group. Rebuilding the system requires measures to strengthen both the central bank and commercial banks. State-owned banks (including state-owned non-bank enterprises) need to be de-linked from government bureaucracy and corporatized. In addition, market infrastructure need to be improved to enforce the implementation of prudential rules and regulations, to promote competition and to stiffen credit policies.

As indirect policies, especially the implementation of the prudential rules and regulations, are relatively inadequate to restrain the expansion of liquidity and current account deficit, the authorities have restored direct administrative controls. These include the elimination of subsidy on exchange rate swap facility and reinstatement of ceilings on external borrowings of the public sector. The link between the base money and broad money is weakened with the rise in the non-remunerated reserve requirement ratio and the introduction of a credit plan which directly sets specific credit growth targets for individual banks. Previously, the moral suasion was only applied to lending to the land-based industry. To support sterilization operations, the Ministry of Finance has, again, forced state-owned enterprises to shift their deposits, mainly at state-owned banks, into the central bank. This dried up liquidity from the economy.

The massive capital inflows also appreciated the external value of the rupiah. This reduced competitiveness of domestic economy in international markets and further provided incentives to invest in the non-traded sector of the economy. Because it was not supported by proper fiscal and monetary policies and a healthy banking system, Indonesia abandoned the moving exchange rate band system on August 14, 1997 and shifted to the floating exchange rate system. The economic costs of such measures are likely to be severe because of the sharp depreciation of the rupiah, punitive interest rates, plunges in the share prices and acute internal and external liquidity crunch. All of these will cause bankruptcies of both banks and their customers, lower growth rate, and raise both unemployment and inflation rates. Such an economic recession depresses investments and pushes down asset prices. These, together with the closing of 16 financially distressed private banks in November 1998, have aggravated the problems as they ignited bank runs, capital flights, buying panics and reluctance of foreign banks to accept Indonesian letters of credit. Even domestic banks have become reluctant to lend to each other.

The revised IMF program announced on January 15 and April 8, 1998 focuses on further reforms in trade and investment policies, financial system and market infrastructure. The program is a good start to strengthen the economic institutions, to improve domestic competition, to increase efficiency, and to remove distortions that restrain exploitation of Indonesia's comparative advantage in the labor-intensive and natural resource-based sectors. To restore public confidence in banking system, the authorities have provided government guarantee on claims of depositors and creditors of the banks operating in Indonesia. The confidence will be restored faster with the progress of bank restructuring programs. The social and political costs of the adjustment program is, however, likely to be very high. Aside from providing financial incentives to traded goods and exports, devaluation will raise inflation rates. The contraction in domestic expenditures and economic growth, and rising bankruptcies will raise unemployment rate. The distributive effects of the adjustment program will be partly influenced by the structure of the expenditure cuts.

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