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CAPITAL INFLOWS, MACROECONOMIC MANAGEMENT AND FINANCIAL SYSTEM IN INDONESIA: 1990-1996

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Abstrak

Tulisan ini bertujuan untuk menganalisis arus masuk modal, manajemen ekonomi makro dan sistem keuangan di Indonesia selama periode 1990-1996 yang merupakan periode rentan bagi perekonomian Indonesia. Penyesuaian dalam ekonomi makro memainkan peranan penting dalam menangani situasi yang kacau yang terjadi pada awal periode 1966-1989 serta goncangan baik internal maupun eksternal. Lonjakan arus modal selama periode1990-1996 memperumit pengelolaan makro ekonomi dan sistem keuangan. Respons kebijakan ekonomi makro terhadap gelombang arus masuk modal yang tidak cocok menyebabkan akumulasi kewajiban eksternal. Ada beberapa permasalahan yang terjadi selama periode tersebut seperti, *implicit deposit insurance*, memuncaknya pinjaman cepat berisiko. Masalah pasar keuangan dan respons yang kurang tanggap membuat Indonesia rentan terhadap goncangan yang akan berdampak negatif pada sentimen pasar terhadap negara dan membuka jalan bagi krisis keuangan pada tahun 1997.

Kata Kunci: arus masuk modal, manajemen ekonomi makro, sistem keuangan, inflasi, kebijakan moneter, kebijakan fiskal, sistem nilai tukar mata uang.

Abstract

This paper aims to analyze capital inflows, macroeconomic management and financial systems in Indonesia during 1990-1996 which is a vulnerable period for the Indonesian economy. Adjustments in macroeconomic plays an important role in dealing with the chaotic situation that occurred at the beginning of the period 1966-1989 as well as both internal and external shocks. Surge in capital flows during periode1990-1996 complicated macroeconomic management and financial systems. Inappropriate macroeconomic policy responses to the wave of capital inflows caused accumulation of external liabilities. There are several problems that happened during such as, implicit deposit insurance, rising up risky loans. Financial market issues and less responsive responses caused Indonesia vulnerable to shocks that would have a negative impact on market sentiment against the State and opened the way for the financial crisis in 1997

Keywords: capital inflows, macroeconomic management, financial systems, inflation, monetary policy, fiscal policy, exchange rate system

INTRODUCTION

Indonesia's economic development started under Soekarno's regime. However, the economic performance led to a disastrous combination of huge budget deficits and hyperinflation. The stagnant economic growth peaked in 1965, which Soekarno

called 'the year of living dangerously', and this economic turmoil ended his presidential administration. Soeharto's 'New Order' policy followed and the need for economic stabilization program and political-social stability enforcement became crucial for providing a primary base for economic growth. The stabilization program played a remarkable role in the economic growth of the 1970s. Inflation was successfully controlled; the inflation rate was kept stable. While economic development under Pelita (five years development plan) programs continued, several macroeconomic policy responses were quite successful in dealing with the shocks in the 1980s. In effect, GDP growth was high compared to previous decades and stayed at a high level. Fiscal imbalances declined and inflation was stable, while the real exchange rate was kept at a level that strengthened non-oil exports.

In the early 1990s, following favorable macro-financial policies besides the change of global economic climate, the surge of capital inflows blew up the country's investment rates. Capital inflows were channeled through financial intermediaries not only to private investment on non-tradable goods, but also to private consumption. The economy grew at 7.3 percent on average during 1990-1996, and macro variables also showed a strong performance such as low and stable inflation. But the strong macroeconomic performance masked the vulnerability in the banking and financial sector. Weaknesses and asymmetric information problems in financial markets, and the way the macro policy mix dealt with economic overheating and surges in capital inflows increased the risks associated with capital reversals.

This paper aims to analyze capital inflows, macroeconomic management and financial systems in Indonesia during 1990-1996. This paper presents stylized facts on the Indonesian economy. During the period 1960-1996, the Indonesian economy experienced several shocks: (i) negative domestic political shocks, 1960-1965, (ii) two positive external oil shocks, 1973-1980, (iii) the collapse of the state oil company, 1975-1976, (iv) adverse global recession, 1982-1983, and (v) capital inflow surges, 1990-1996. All these shocks and many other factors have added additional cycles to the country's macroeconomic-financial performance and complicated economic policy management. This paper is structured as follows. The first section is introducing. Sections 2 and 3 examines more specific aspects of the buildup of vulnerability in the country, looking in more detail at links between surges in capital inflows, macroeconomic policy responses, and problems in corporate, bank and financial institutions. And the final section offers concluding comments. We hope this paper could bring a broad view on mechanisms driven Indonesia's macroeconomics and financial system and try to draw lessons from it.

THEORITICAL FRAMEWORK

Capital Inflows and Macroeconomic Management: 1990-1996

Since 1990, Indonesia experienced large-scale capital inflows. Global capital flows actually gave the country a benefit by easing external financing constraints, and opportunities to smooth their consumption-investment and to gain from knowledge spillovers. However, large capital inflows over periods 1990-1996 complicated the country's macroeconomic policy management. Policy makers had to decide on the magnitude, sequencing, and timing of policy actions in the face of the potential effects of large capital inflows on domestic macroeconomic stability (overheating risks), the competitiveness of the external sector, and external viability. In addition, the danger of a sudden reversal of the capital flows was huge. This section sets out a stylized framework aimed at outlining the characteristics of capital flows to Indonesia as well as their macroeconomic impacts and the country's authorities response to these inflows. Moreover, since the transmission of capital inflows through the

country's financial system is an important feature of the process by which capital inflows may lead to financial fragility, the next section will look at growth and financial performance, and the corporate sector behavior during 1990-1996. The analysis in this section and the next section is depicted schematically in Figure 1. Bank lending booms finance by surge in capital inflows led to over borrowing and asset price inflation, exacerbating financial fragility and macroeconomic vulnerability. The excesses in financial market then lead to financial distress and crisis later on.

Record and determinants of capital flows

1. Capital flow trends

Overall, Indonesia's macroeconomic performance was remarkable after the stabilization and adjustment programs in the 1980s. Capital inflows to Indonesia increased steadily since 1990, with net capital inflows exceeding three percent of GDP in 1995 and 1996 (see Table 1 and 2). With other emerging economies of East Asia, Indonesia recorded real GDP growth rates that were among the highest for any region in the world over a sustained period. Real GDP per head increased at a rapid and steady rate, during 1990-1996 at 7.2 percent a year, while the unemployment rate dipped to historical lows. In parallel, total net capital inflows were also above four percent of GDP each year over the same periods. In terms of debt stock, at the end of 1996, Indonesia total external debt reached 60 percent of GDP (see Table 3).

The relative level of net capital inflows to Indonesia (in terms of GDP) has been higher than to Malaysia, close to the level of capital inflows to China, but lower than to Thailand and Philippines (see Table 4). There was a net capital outflow from China in 1992 and from Singapore after 1992. Among ASEAN countries, Thailand was the largest recipient of capital flows averaged more than ten percent of GDP in the 1990s and the highest level reached at 13 percent of GDP in 1995.

There are a number of salient features of capital flows to Indonesia. First of all, total net capital inflow was on average equal to USD 0.3 billion in the 1983-89 period and USD 6.7 billion between 1990-1996, a more than twenty-fold increase. The surge in capital flows during 1990-1996 contrast sharply with the experience of 1983-1989 periods, when official flows, especially to the government sector, accounted for a much larger proportion of total capital inflows. Moreover, the bulk of capital flows in earlier periods comprised bank lending, often to public entities, whereas flows in the 1990-1996 period were dominated by foreign direct investment (FDI) while portfolio flows have also increased. Initially, the bulk of the flows took the form of FDI, which accounted for 26.4 percent of total net capital inflows between 1990 and 1992. Indonesia began receiving sizable portfolio investment from 1993 onwards. It took the largest share of capital inflows, around 55 percent on average during 1993-1996. By contrast, net long term borrowing by public enterprises and government declined considerably in the 1990-1996 period, reflecting in part the repayment of debt accumulated earlier.

Second, capital flows contributed to the balance of payments: the surplus on the financial account offset the current account deficit. Table 2 shows that the country had a current account deficit, which averaged 2.5 percent of GDP in the period 1990-1996. So, Indonesia was a large net capital importer. Third, foreign loans and credits made directly to non-financial sector borrowers were more important than loans and credits made through the banking sector. In terms of the distribution of the external debt stock, the private sector owned over 60 percent of external debt. The largest part of that (90 percent) was in the hands of the non-bank sector. Most of the private sector's external debt was short term and unhedged. Finally, there is considerable uncertainty regarding the size of short-term flows in and out of Indonesia. There are sizable 'net errors and omissions', the current account records very large unclassified invisible earnings.

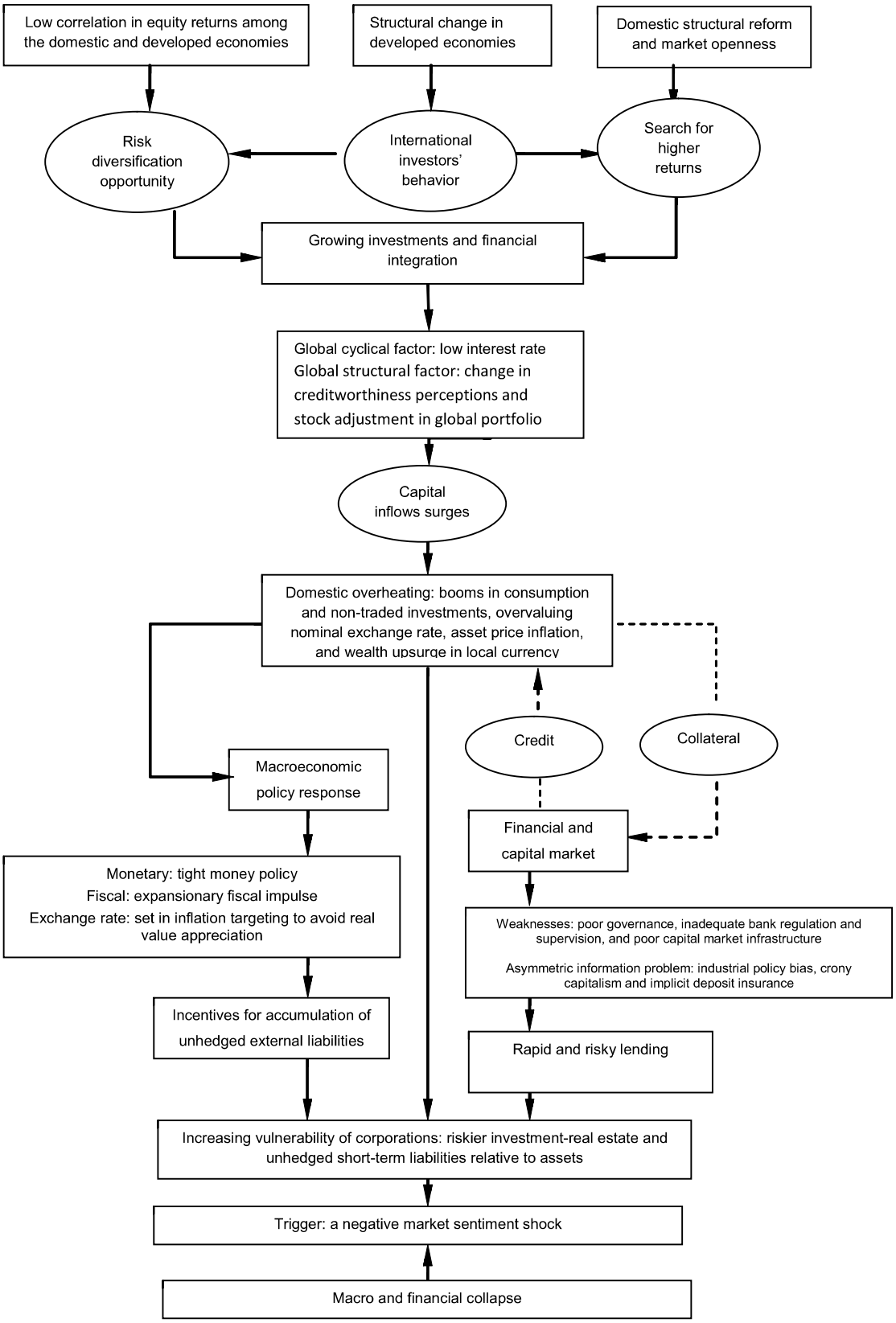

Figure 1. Buildup of Macro-financial Vulnerability during 1990-1996
Source: World Bank (1997), Ghosh and Pangestu (1999), and Author's modification.

Table 1. Indonesia: Net Capital Inflows (% of GDP)

	1990	1991	1992	1993	1994	1995	1996
Financial account	3.9	4.4	4.4	3.6	2.2	5.1	4.8
Direct investment	1.0	1.2	1.3	1.0	0.8	1.9	2.5
Portfolio investment	-0.1	0.0	-0.1	1.1	2.2	2.0	2.2
Other investment	3.1	3.3	3.2	1.4	-0.9	1.2	0.1
General government	0.4	1.0	0.6	0.3	0.1	0.0	-0.3
Banks	n.a.	n.a.	n.a.	0.9	0.3	1.0	-0.3
Other sectors	2.6	2.3	2.6	0.2	-1.2	0.2	0.7
Net errors and omissions	0.7	0.1	-0.9	-1.9	-0.1	-1.1	0.6
Current account balance	- 2.6	- 3.3	- 2.0	- 1.3	- 1.6	- 3.2	- 3.4

Source: IMF, International Financial Statistic and Bank of Indonesia.

Table 2.Indonesia: External Debt Outstanding, 1990-1996

	1990	1991	1992	1993	1994	1995	1996
World Bank classification							
Total external debt	69.9	79.5	88.0	89.2	107.8	124.4	129.0
Long-term debt	58.3	65.1	69.9	71.2	88.4	98.4	96.8
Private non-guaranteed debt	48.0	51.9	53.7	57.2	63.9	65.3	60.1
Public and publicly guaranteed debt	10.3	13.2	16.3	14.0	24.4	33.1	36.7
Use of IMF credits	0.5	0.2	0.0	0.0	0.0	0.0	0.0
Short-term debt	11.1	14.3	18.1	18.0	19.4	26.0	32.2
Debt indicators							
Total debt to export ratio (%)	234.1	237.4	230.2	212.6	231.8	234.1	221.4
Total debt to GNP ratio (%)	64.0	64.9	66.2	58.7	63.3	64.6	59.7
Private debt to total debt ratio (%)	68.7	65.3	61.0	64.1	59.3	52.5	46.6

	1990	1991	1992	1993	1994	1995	1996
Government debt to total debt ratio (%)	14.7	16.6	18.5	15.7	22.6	26.6	28.4
International reserves to total debt ratio (%)	12.4	13.0	13.0	14.0	12.3	12.0	15.1
Bank of Indonesia Classification							
External debt (billions USD)	62.8	65.7	73.4	80.6	96.5	107.8	110.2
Government*	45.1	45.7	48.8	52.5	58.6	59.6	55.3
Private	17.7	19.9	24.6	28.1	37.9	48.2	54.9
Structure of private sector external debt (%)							
By debtors							
Banks	14.8	17.1	23.4	27.6	21.7	20.9	16.5
State owned banks	6.4	7.0	10.3	11.1	7.3	8.0	5.4
Private banks	8.4	10.1	13.1	16.5	14.4	12.9	11.1
Non-banks	85.2	82.9	76.6	72.4	78.3	79.1	83.5
State owned enterprise	17.6	16.8	18.4	18.0	13.4	10.0	6.8
Foreign investment enterprise	26.4	25.8	22.7	21.2	25.3	27.0	29.9
Domestic investment enterprise	23.0	22.5	19.8	18.5	22.1	23.5	26.1
Financing institution	3.9	3.8	3.3	3.1	3.7	3.9	4.4
Others	14.4	14.1	12.4	11.6	13.8	14.7	16.3
By maturity							
Short-term	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Long-term	93.1	93.1	93.1	93.1	93.1	93.1	93.1
Debt indicators							
Government debt to total debt ratio (%)	71.8	69.6	66.5	65.1	60.4	55.3	50.2
Private debt to total ratio (%)	28.2	30.4	33.5	34.9	39.3	44.7	49.8
Total debt to GDP ratio (%)	43.2	44.6	48.4	51.2	59.1	63.6	62.5
Total debt to export ratio (%)	244.7	225.4	216.0	218.9	240.9	237.4	221.2

Notes: * Sub-divided into category of creditor's institution (IGGI/CGI and non-IGGI/CGI) or into types of loan (bilateral, multilateral, export credit facility, leasing, commercial, and domestic securities owned by non-resident).
Sources: Nasution (2000), Bank of Indonesia and World Bank, *Global Development Finance.*

Table 3. Net Capital Inflows of Selected Asia Countries (% of GDP)

	1990	1991	1992	1993	1994	1995	1996
China	0.8	2.0	-0.1	3.9	6.0	5.5	4.9
Thailand	10.7	12.0	8.5	8.4	8.4	13.0	10.7
South Korea	1.2	2.3	2.3	1.0	2.7	3.6	4.6
Singapore	10.8	5.5	3.7	-2.1	-12.68	-1.1	-5.28
Philippines	4.7	6.4	6.1	6.0	8.0	7.2	13.6
Malaysia	0.6	1.5	2.3	2.5	0.3	1.4	1.5

Notes: sum of direct investment, portfolio investment, and others investment.
Source: IMF, *International Financial Statistics.*

2. Determinants of capital inflows

Haque, et al. (1996) distinguished autonomous increase in the demand for money and increase in domestic productivity of capital as pull factors, and changing in external economic circumstances as push factors. In particular, higher capital productivity causes sustained foreign inflows, and external factors drive temporary inflows. A number of empirical studies that attempted to distinguish domestic and international influences suggest that international factors have played a greater role in Latin America than in Asia (Calvo, et al., 1994a, 1996; Fernandez-Arias & Montiel, 1995; Chuhan, et al., 1998; Kim, 2000). However, it is difficult to identify the underlying causes of capital inflows early since these factors and trends interacted in the early 1990s to make Indonesia one of fertile country among East Asia countries for the renewal of international lending (Little, et al., 1993; World Bank, 1997). By treating each determinant of capital flows suggested by the literatures separately and closely, the strength of the country's domestic fundamentals and external factors that have driven capital flows to Indonesia can be classified as follows:

- A cyclical downturn in interest rate in the large industrial countries, which occurred in the early 1990s, attracted investors to high investment returns and played an important role in the initial surge in capital flows to many emerging markets. For Indonesia, there was no inverse relation between US interest rates and equity prices on the Jakarta Stock Exchange. Figure 2 makes clear that stock price movements in Indonesia are more closely related to changes in US interest rates. An increase in the value of company assets would in turn increase the price of both debt (bond) and equity (stock). It means that country risk premium declines which is considered as good news by policy makers. In the early 1990s, major industrialized

countries experience recessions and developing countries become more attractive for profit opportunities. However, since mid-1995, most of OECD countries move towards recovery. So these factors become less crucial in flows of capital to developing countries (Calvo, et al., 1994, 1996).

- The regulatory change in US and Europe made it easier for an increasing number of funds, i.e., life insurance and mutual funds, to allocate their equity and bonds under more attractive circumstances to emerging markets. Furthermore, the following key developments in developed countries have increased and spurred international capital markets integration, i.e.; (i) competition and rising costs in domestic markets, along with decline in transport and communication costs, and (ii) advances in technology of communication and information and financial instruments. With these dynamic changes in many emerging markets, Indonesia represents a large market in the developing world and provides incentives to investors in the industrial countries to diversify their portfolios in the Indonesia's stock market. Although the country's market is more volatile, it yields relatively high returns and provide scope for portfolio diversification because of the low correlation with financial markets in industrial countries (World Bank, 1997).

- As discussed in the previous section, Indonesia achieved strong macroeconomic performance by stability policies and structural reforms in the 1980s. These were instrumental in attracting capital flows. Prudent macroeconomic policies has enable Indonesia to maintain macroeconomic stability over long periods which, in turn, has helped to sustain external confidence and influenced their decision to make more investments. Structural reforms, i.e., trade liberalization, and financial and capital account liberalization, paved the way for an expansion of domestic equity markets. Not unexpectedly, the country's high domestic growth rate and other domestic sector macro-performance indicators fed investor's optimistic beliefs that economic growth would persist in the future and affected their decision to make more investments.

- Calvo, et al. (1994) put forward the notion of so-called 'contagion effect' in explaining capital inflow surges to developing countries during the 1990s. The effect describes that a large shift of capital inflows into one or two large economies in a region may generate externalities for smaller neighboring countries. When one investor enters one of the Asian countries, they are more familiar with and more willing to invest in other emerging markets in that region.

Macroeconomic effects of capital inflows

Capital inflows and macroeconomic developments clearly have impacts on one another through various channels. Empirical work on the impact of capital inflows on the real economy in the recipient economy has been based mainly on case studies and generalizations from country experience. In most cases, for instance, Fernandez-Arias and Montiel (1995), Khan and Reinhart (1995), Corbo and Hernandez (1996), Koenig (1996), Calvo, et al. (1994b, 1996), report that capital inflows tended to raise aggregate expenditures, to widen current accounts deficits, to increase money balances and foreign exchange reserves, and to appreciate real exchange rate. Table 5 summarizes the performance of selected Indonesia's macroeconomic indicators associated with the sustained capital inflows during 1990s. The country's current account deficit was widened in 1990s and peaked at 3.4 percent of GDP in 1996. A large portion of the surge in capital inflows also was channeled to accumulation of international reserves.

Table 4. Indonesia: selected key macroeconomic variables, 1990-1996

	1990	1991	1992	1993	1994	1995	1996
Domestic sector							
GDP growth (1990 prices, % p.a)	7.24	6.95	6.46	6.5	7.4	8.2	7.81
Composition (% of GDP)				0	8	2	
Private consumption	54.40	54.99	52.31				62.36
Government consumption	8.99	9.13	9.52	58.5	59.6	61.5	7.57
Gross fixed capital formation	36.13	35.47	35.83	1	8	8	30.69
Net Exports	0.49	0.40	2.34	9.0	8.1	7.8	- 0.62
				2	1	3	
				29.4	31.0	31.9	
				8	6	3	
				2.9	1.1	-	
				9	5	1.33	
Unemployment rates (% p.a)	2.50	2.60	2.70	2.8	4.4	7.2	4.90
				0	0	0	
Saving rates (% of GDP)	33.90	32.54	33.45	28.7	30.4	30.9	28.48
				6	0	7	
Inflation rates (% p.a)							
GDP deflator	9.47	10.84	6.12	9.6	7.8	9.8	8.68
CPI	7.76	9.40	7.59	6	4	8	7.79
				9.6	8.5	9.4	
				0	3	3	
M2 growth (% p.a)	44.61	17.47	19.76	20.2	19.9	27.1	27.18
				3	8	6	
Interest rate							
Deposit 6 month	17.30	23.27	20.37	14.5	12.5	16.7	17.26
Money market rate	13.97	14.91	11.99	5	3	2	13.96
Lending rate	20.83	20.83	25.53	8.66	9.74	13.6	19.22
				24.0	20.5	4	
				3	9	17.7	
						6	

	1990	1991	1992	1993	1994	1995	1996
Fiscal impulse	- 1.20	1.20	- 0.10	- 1.00	- 0.50	- 0.10	0.70
Fiscal balance (% of GDP)	0.38	0.39	- 0.39	0.61	0.92	2.22	1.16
External sector							
Real exchange rate (1990 = 100)	100	100.11	100.07	99.61	99.31	99.02	98.94
M1 to foreign reserves ratio	1.51	1.34	1.19	1.3	1.4	1.4	1.14
M2 to foreign reserves ratio	5.39	4.97	5.15	15.55	6.02	6.57	6.15
Current account (% of GDP)	- 2.61	- 3.32	- 2.0	- 1.33	- 1.58	- 3.18	- 3.37
Capital inflows (% of GDP)							
Direct investment	0.96	1.16	1.28	1.2	1.1	2.1	2.72
Portfolio investment	- 0.08	- 0.01	- 0.06	7	9	5	2.20
Other long and short-term capital	3.05	3.30	3.19	1.14	2.19	2.03	0.11
Foreign reserves (in month of imports)	3.24	3.53	3.62	3.60	3.24	2.94	3.64
Short-term debt to foreign reserves ratio	1.31	1.40	1.59	1.4	1.4	1.7	1.67
	15.94	18.00	20.52	6	7	6	25.00
Short-term debt (% of total)				20.17	18.05	20.87	
Debt service as a ratio of exports	33.40	34.30	32.60	33.60	30.70	30.90	36.80
Export growth (% p.a)	16.68	10.55	14.04	8.32	9.88	17.98	5.76
Foreign reserves (% p.a)	26.9	19.4	11.4	7.2	7.2	11.5	24.9
International reserves (US billions)	7.5	9.3	10.4	11.3	12.1	13.7	18.3

Source: IMF, *International Financial Statistics*, and World Bank.

Acceleration in economic activity gave the logic sign that capital inflows might generate rapid money growth. In the midst of sustained capital inflows, however, it is possible for monetary authorities to control money supply expansion. Under fixed exchange regime, unsterilized capital inflows may result in an acceleration of economic activity followed by some loss of monetary control, resulting in higher growth in money supply both in real and nominal terms. This undesired monetary expansion might lead to upward pressure on aggregate demand and prices. If the central bank keeps interest rate high or issues bonds to sterilize capital inflows, this action may be costly and induce further capital inflows. The authorities faced the dilemma between keeping monetary stability to contain inflation and limiting exchange rate appreciation to maintain external competitiveness. In practice, the authorities loosen money supply for leaning more toward resisting an exchange rate appreciation. M2 growth increased markedly in 1995 and 1996 at 27.1 and 27.2 percent respectively and averaged 25.2 percent per annum during 1990-1996. On the other hand, relatively high domestic interest rates to sterilize capital inflows compounded the policy dilemma by further increasing capital inflows. This proves to some extent that ineffective sterilization also contributes to the monetary expansion.

Macroeconomic adjustment and economic overheating

The appropriate macroeconomic policy response to large-scale capital inflows depends on a number of factors. The policy response may depend on (i) whether capital inflows are largely driven by domestic fundamental macroeconomic or by external factors, (ii) the types of capital inflows - whether the share of inflows are largely due to FDI, other flows that are more volatile, or debt creating, and (iii) the capacity of the country's banking system to intermediate large capital inflows. If the capital inflows are driven by an upward-shift in the demand for money, the expansion in money supply will not be inflationary and no other sterilization is needed. Improvement in the fiscal position, even if government budget is in broad balance and the initial current account deficits stem from the private sector, would lower demand pressures and the risks of sudden reversals of capital inflow (Mathieson & Rojas-Suarez, 1993 and Heller, 1997).

In a managed floating exchange rate system, like Indonesia, the impact of capital inflows tends to increase domestic aggregate demand and money supply, and raise domestic prices, therefore also leading to a real exchange appreciation. Thus, resisting nominal exchange rate appreciation in the face of sustained capital inflows may not ultimately limit real exchange rate appreciation. The country faced the 'open economy trilemma', that is it is impossible to pursue a relatively fixed exchange rate system and open capital market while monetary policy is used to contain real exchange rates appreciation as well as to control inflationary pressures (Obstfeld, 1998; Obstfeld & Taylor, 1998). The country's policy mix experience in responding to capital surges thereby led to a virtuous circle of further overheating (Figure 3). Under the managed floating exchange rate system, capital inflows led to a monetary expansion. The sterilization, which relied heavily on monetary policy rather than on fiscal policy and exchange rate management, was incomplete and proved difficult (Table 6). Figure 4 illustrates the fact of the Indonesian trilemma. This provided a major cyclical impulse to private capital inflow in the form of large amounts of short-term unhedged capital.

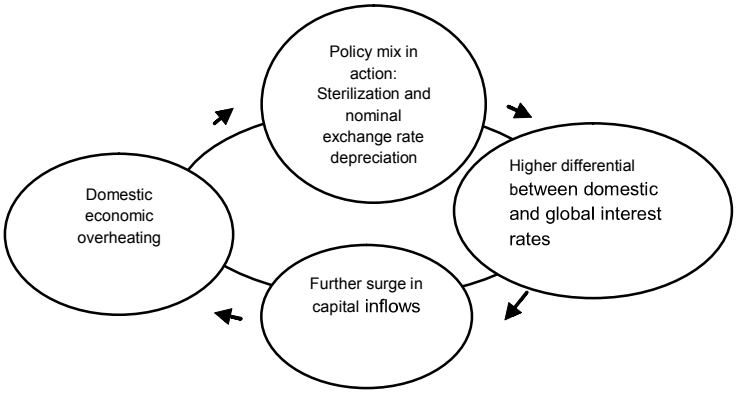

Figure 2. Virtuous circle of policy mix in action

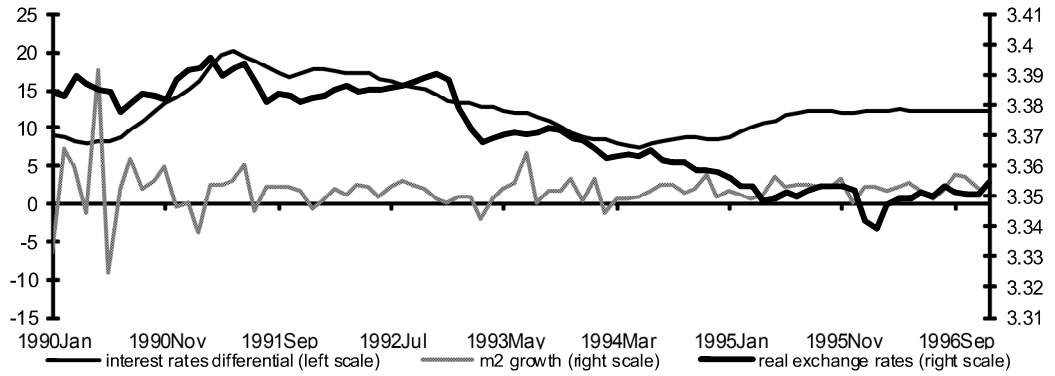

Figure 3. Indoensia trinity impossible, 1990-1996
Source: International Financial Statistic, IMF

Table 5. Indonesia: chronology of macroeconomic policy mix response to capital inflow surges and overheating, 1990-1996

	Monetary	
	Measures	Objective
1989	30 day and 7 day certificates of Bank Indonesia (SBI) reduction respectively from 17 % to 13.5 % and 15% to 10% between February and December.	Supporting non-oil export strategy which reflected in a series of structural reform in 1980s.
1990	January: announcing the phasing away of liquidity credit, i.e., a special program of the central bank by which subsidized credit is directed to the economy.	Absorbing a very sharp expansion in private investment and consumption as result of growing private capital inflows. Controlling liquidity.
	Tight money policy in June by increasing SBI rate around 6-7 % above the March level.	Idem.

	Monetary	
	Measures	Objective
1991	February: requiring state enterprises to convert their deposit in SBI and purchase SBPU (commercial bank paper).	Reducing domestic credit.
	September: COLT is formed for setting ceilings on external commercial borrowing of all public and publicly related projects.	Strengthening monetary control and discourage capital inflows.
1992	Loosening of tight monetary policy.	Sign of strong demand pressures had halted and to enforce domestic stock market.
1993	December: tight monetary policy by selling SBI and borrowing by foreign banks included under COLT.	Discourage a large inflow of portfolio capital due to investor's expectations that share prices could boom as result of loosened monetary policy early 1993.
1994	Offsetting capital inflows and moral suasion to the bank.	Concern about rapid credit growth of private sector in housing and real sector.
1995	Tight monetary policy by raising interest rate. Commercial bank reserve requirement is raised from 2 percent to 3 percent.	Reducing bank credit growth.
	Banks required submitting annual business plan and implementation reports, to set guidelines for credit policy formulation and to submit credit report to central bank.	Idem.
1996	January: increased reserve requirement for commercial bank from 2 to 3 % and moral suasion.	Discourage capital inflows.
	Exchange rate management	
1994	January: central bank widened exchange rate intervention band from 10 to 20 IDR. August: intervention band widened from 20 to 30 IDR	Discourage further short term speculative inflows and to strengthen monetary policy.
1995	June: widening of IDR trading band from 2 to 3 percent around daily mid-rate.	Offset the incentive to invest in domestic assets provided by the higher interest rate
1996	January: intervention band widened from 2	Idem as 1995 objectives.

		Fiscal
1991	Wiped up oil earnings through government's asset build-up with central bank.	Helping to reduce the growth of domestic credit.
1992	Budgetary overrun in capital expenditures of 2.5 % of GDP.	Re-capitalization of state bank, i.e., conversion 1.2 trillion IDR of BI liquidity credits into equity.

Note: COLT = Commercial Offshore Loan Team
Source: Ahmed and Kapur (1990), Reinhart and Reinhart (1998) and Corsetti*et al.* (1999).

The country began to suffer from economic overheating in 1990. A relatively expansionary monetary policy and more active financial intermediaries following the financial deregulation of the 1980s allowed the private sector to boom. The central bank cut the rate of certificates of Bank Indonesia (SBI) gradually during the year before 1990 due to the worry that the rate had been rather high and impeded the growth in investments in the non-oil sector, which was regarded as a positive sign of structural reforms in the 1980s. The interest rate cut, in conjunction with greater access to credit, resulted in a strong demand pressure. There was a surge in import, a relatively slow-down in non-oil exports, and a considerably increase in inflation. As a result, the current account widened to 2.6 percent of GDP and inflation climbed to over 9 percent with CPI (price of non-traded sectors) increasing by nearly 8 percent. The emergence of macroeconomic imbalances considerably concerned the government. The first response was a phasing away of liquidity credits. Between March and December 1990 credits were reduced by at least 3.8 billion IDR (Ahmed & Kapur, 1990). Domestic credit was further tightened by an increase in the SBI rate. In fact, commercial banks also increased the time deposit and lending rates. Global interest rates became lower; see for example the 6-month LIBOR on USD deposits in Figure 5. So, the policy actually created a higher differential between domestic and global interest rates which fueled a further surge in capital inflows. The central bank attempted to control the resulting surge of private capital inflows with a swap facility which the central bank takes the responsibility over the cost of exchange rate changes. However, the swap premium rate remained below the differential between domestic and foreign interest rates, thus this implicit subsidy from the central bank reinforced commercial banks to borrow more funds from overseas and loan it locally.

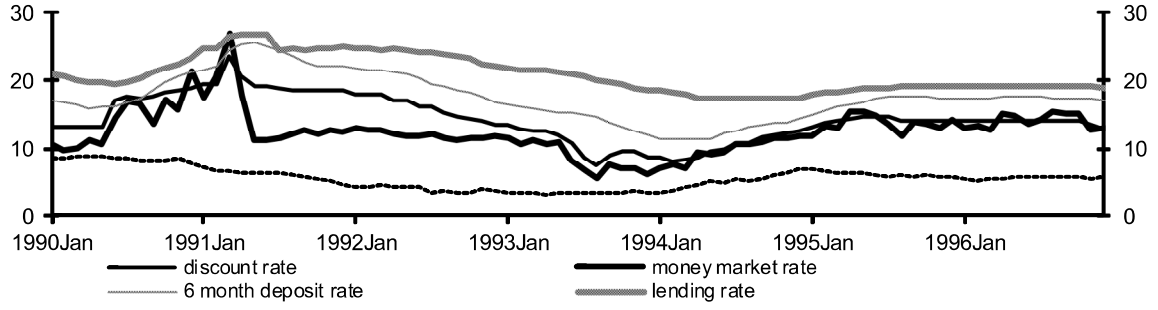

Figure 4. Indonesia and US interest rates (%)
Source: International Financial Statistics, IMF

Faced with the new short-term capital inflows, a number of measures were taken to reduce the growth of money and credit. First, in early 1991 the government required state enterprises to withdraw almost 10 billion IDR of deposits from the banking system and switch them into central bank certificates (SBI). Secondly, in September of the same year the government formed a team, known as COLT (Commercial Offshore Loan Team), for the coordination of public and quasi-public projects. These measures helped to moderate the pressure on the current account and caused more discipline in external borrowing. Another potential source of domestic credit growth, surplus oil earnings after Iraq invaded Kuwait, was generally tackled by cautious fiscal policy. Almost all of the windfall oil revenues were transferred to the government account in the central bank. The measures constrained the liquidity of the private sector and the domestic interest rate started to increase in 1991. In March 1991 the domestic rate on 6-month time deposits increased by 2.1 percentage points compared to an interest change of minus 0.51 percentage points of the 6-month LIBOR on USD deposits. In addition, the inter-bank call money rate rose 6.25 percentage points and the lending rate by 1.8 percent points (Figure 5). In such circumstances, the growth of private capital undeniably slowed down in 1991. The World Bank (1997), however, argued that the capital inflows recorded at 4 billion USD in 1991 were actually high compared to the size of the economy, and also that the sales of foreign exchange to the central bank by financial institutions was at an excessive level.

There are three pieces of evidence that the economy continued to expand in 1992. First, the central bank loosened its tight monetary policy in reaction to the weakening of demand pressure in the beginning of 1992. Secondly, the fiscal measures were not adequately tightening. The budget deficit was equal to 0.4 percent of GDP. Thirdly, the exchange rate target of the IDR was still far below the value implied by the continued differential between domestic and foreign interest rate. Domestic commercial banks were more induced to borrow from abroad; foreign deposit holdings in domestic bank account became larger (Ghosh & Pangestu, 1999).

The economy became more sensitive to changes in the policy mix, particularly monetary policy. The expansionary monetary policy in 1992 quickly led investors to the expectation that stock prices would boom. At this stage, the central bank response to incoming capital inflows by selling SBI did indeed serves as a catalyst for the inflow of portfolio investments. In 1993 the economy grew by 6.5 percent and the inflation rate jumped to nearly 10 percent. Even though in early 1994 the exchange rate band of central bank intervention was widened to discourage further speculative movements of capital, bank lending increased to over 50 percent of GDP in 1994. Additionally, capital inflows turned to the real estate sector through the banking system. In 1994 bank lending to the property sector were 16.3 percent of total loans compared to 13.3 percent in the previous year. The central bank tried to curtail property credit growth by moral suasion.

The growth acceleration in 1995 brought about signs of overheating. The inflation rate reached nearly 10 percent, while the country's economic growth rate was 8.2 percent and the current account deficit widened to 3.2 percent of GDP. The government responded directly with a mix of policies consisting of a weak fiscal contraction, a modest tightening of monetary policy and a widening of the exchange rate intervention band by 2 percent. The bank authority also deepened its efforts to moderate the growth of bank credit, particularly to the property sector, by repeating moral persuasion. In 1996 economic overheating was still continuing due to the fact that aggregate demand was boosted by capital inflows. The central bank further widened the

intervention band from 3 to 5 percent in June 1996 and again from 5 to 8 percent in September 1996. Also in January 1996 the reserve requirement was increased and further moral suasion was used to control domestic credit expansion.

To conclude, during the 1990-1996 period the role of monetary policy was significant in inducing capital inflows shock in the middle of more global integration of financial institutions. There is a co-movement between on the one hand the central bank discount rate as main instrument to control reserves and on the other hand capital inflows and economic overheating. Other policies were set to improve the effectiveness of monetary policy, rather than as alternative main tools. The accommodating fiscal policy was expansionary. It put an upward pressure on domestic interest rates and generated incentives towards the accumulation of short-term external liabilities. On the exchange rate management front, the central bank targeted the real exchange rate progressively by depreciating the local currency to broadly counterbalance the inflation differential between Indonesia and US. This protected export competitiveness in line with the country's strategy of export-led growth. In practice, the central bank set a relatively narrow band for the expected real exchange rate. The reason is that, despite the fact that trade with Japan and Europe was significant; a large portion of trade was conducted and denominated in US dollars. Hence the nominal exchange rate was depreciating persistently, which in turn encouraged a further accumulation of unhedged external liabilities. The excess liquidity was channeled into asset markets and consequently fueled a price bubble in both real estate and stock markets. The weak regulatory and institutional framework in the liberalized bank sector, due to lending for investment in the speculative sectors at inflated collateral, further contributed to the rise in asset prices.

CAPITAL INFLOWS, CORPORATE SECTOR, AND THE FINANCIAL SYSTEM: 1990-1996

Financial reforms and weaknesses of financial markets

Indonesia has undergone a process of capital account liberalization since the 1960s and a comprehensive financial (banking and capital market) sector deregulation and liberalization during the 1980s. The liberalization refers to the process of removing barriers to foreign entrance while deregulation was geared at freeing domestic barriers to competition. The banking reforms increased competition among domestic banks and eroded the dominance of state banks. Table 7 illustrates how private banks took over the dominance of the state banks in terms of number and the value of assets. The numbers of new banks exploded when requirements were less stringent, strict branching requirements were removed, and possibilities to become a foreign exchange bank became better. In 1990 there were 109 private national banks, a number which increased to 165 in 1996; meanwhile the number of foreign and joint venture banks went up from 28 to 41 and the number of state banks stayed the same (7 banks). The total asset of banking sectors were concentrated in private national banks and it surpassed assets value of state-owned banks in 1994.

On the capital market side, the requirements for companies to go public were eased and authorities also abolished the practice of setting prices for initial public offerings (IPOs), limitations on share price movements in the secondary market were removed, and foreign investors and security houses were allowed to operate in the domestic market. Consequently, the number of companies listed in the stock exchange increased substantially. During this period, the capital market played an increasing role in raising long-term funds needed by

corporate sector and also provided a vehicle for the privatization of state-owned companies.

Deregulation and liberalization aimed at enhancing every aspect of the domestic financial sector, but in fact exposed the economy to international financial markets. Together with capital inflow surges, domestic liberalization increased credit and money growth rapidly and led to overheating in the 1990s. A part from the introduction of tight monetary policy as discussed above, other banking-financial measures are introduced in the early 1990s for more soundness and prudential requirements for domestic banks. For instance, regulation aimed at tightening legal lending limits related to groups or to one individual group and at increasing minimum capital requirements for opening a bank. An interpretative account has to explain why and where the financial fragility developed. Many studies, for instance Hernandez and Landerretche (1999) and Gourinchas, et al. (2001), emphasize that financial fragility in emerging markets is related to the development of a financial market. Most likely financial fragility lies in weaknesses in the regulatory and supervisory framework of financial system. Through this financial intermediation circumstance, potential borrowers would have low financial wealth compared to their size of project and lead to high agency cost, degradation of investment sector performance and economy overall (Bernanke & Gertler, 1990).

Table 6. Indonesia: Banking Sector Growth (% of total), 1990-1996

	1990	1991	1992	1993	1994	1995	1996
State-owned banks							
Assets	53.5	50.6	51.9	46.8	41.9	39.5	36.4
Number of banks	4.1	3.6	3.4	2.9	2.9	2.9	2.9
Private national banks							
Assets	36.3	38.0	36.9	41.0	45.6	47.6	51.7
Number of banks	63.7	67.2	69.2	68.8	69.2	68.8	68.6
Foreign banks							
Assets	4.4	4.8	4.2	3.7	3.7	4.0	4.1
Number of banks	5.8	5.2	4.8	4.3	4.2	4.2	4.2
Regional government banks							
Assets	2.9	3.0	2.9	3.0	3.2	3.2	2.8
Number of banks	15.7	14.2	12.9	11.5	11.3	11.3	11.3
Joint venture banks							
Assets	2.9	3.6	4.2	5.5	5.7	5.8	5.1
Number of banks	10.5	9.9	9.6	12.4	12.5	12.9	12.9

Source: Bank of Indonesia.

The process of Indonesia's financial vulnerability build-up explains itself that financial liberalization occurred too rapidly without the requisite supporting institutional framework. An adequate financial disclosure and legal framework were not in place and implemented after trade sector has been completely liberalized and financial reforms. Moreover, banking sector governance was weak and banks had little incentive to review their corporate lending cautiously. In the 1990s, the open capital account allowed Indonesian firms to encourage large inflows of volatile short-term capital through syndicated loans or issuance of commercial papers and equity.

The previous section shows that the huge and prolonged capital inflows as ratio of GDP fed into the current account deficits. A large part of these inflows are portfolio investments regarded as short term and volatile in nature (hot money). These increasing flows of funds injected into banks and the corporate sector that later on accumulated too much short term external liabilities. A part from the fact that the external debt of the private sector increased steadily, on average nearly 80 percent of this debt was owned by the non-bank private sector. Montgomery (1997) showed that the stock market had contributed only about 15 percent of total business finance, while the rest had been provided by the banking sector. It is too prone to risk taking if increasing capital inflows in to the country is intermediated by undercapitalized and poorly regulated banking sector. Not only the amount of total lending that matters, but also the quality of the projects financed by the banking system.

The emerging consensus of studies analyzing the Indonesian bank fragility pointed at several weaknesses the rapid liberalization of financial markets: poor risk management, poor prudential regulations and supervisory capacity of the central bank, and excessive financing of risky and projects with low profitability. Table 8 contains major indicators of the fragility of the Indonesian banking sector and stock market. The first ingredient of the banking sector weaknesses, i.e. poor risk management, explained why risky ventures accumulated in the economy. This indicator shows up when the economy is heading for a lending boom and investors begin to put funds in risky projects. The lack of sufficient well-trained staff in financial intermediaries leads to non-solid risk management practices for screening and selecting loan applications. The result is an inadequate collateralization, failure to provide payments on foreign liabilities, poor loan documentation, and at the macro level the devaluation of domestic currency. The bank portfolio thereby tends to deteriorate during a period of rapid credit growth.

Close ties with government allowed most banks and industrial groups in the country to had privileged access to credit, clouded the credit decision and supervisory actions and resulted in poor credit and inadequate supervision over banks and financial institutions. Increases in non-performing loans, non-bank financial intermediaries, and under-capitalization situation, are the signs of the lack of adequate supervision. A greater portion of credit portfolios was accounted as non-performing loans (see Table 8). Loans were granted for amounts exceeding fair market valuations of the collateral. Low capital requirements or inadequate capital holdings were the main cause of under-capitalization. This shifted the default risk burden from owners toward depositors (characterized by high loan to asset ratio and low cash assets to deposit ratio, see Table 8).

Finally, the proliferated non-bank financial intermediaries under liberalization prevented credit restrictions and other bank regulations. A further consequence of poor banking regulation was the over-expansion of non-tradable sector, such as real estate and infrastructure projects, and of the part of tradable goods sector that requires a massive of imported inputs and whose

value is low. Financing in risky and low profitability projects is the third ingredient of weak financial sector supervision. Consumer demand and asset prices moved in tandem with capital inflows. Table 8 shows the lending boom in the 1990s, the ratio of bank lending to private sector as percentage of GDP moved upward. In such boom situations, financial intermediaries, in competition for market shares, went into speculative assets and low margin loan portfolios. As more capital flowed into the economy, the quality of credit placement became under pressure. Banks started to replace their short-term foreign debt by long-term domestic assets, such real estate sector and land. Table 3 in the preceding section makes clear that the domestic banking system had a high exposure to foreign exchange risk. The ratio of net foreign liabilities to total bank liabilities was high. When this short-term external borrowing in foreign currency was converted into rupiah and long-term domestic loans, the currency and debt-maturity mismatches occurred.

Corporate sector

Ownership structure and financing

The evolution in the Indonesian industry paralleled government industrial policies and economic shocks. A gradual shift in public investment away from manufacturing took place when New Order regime in the late 1960s introduced more liberal regulations governing domestic and international investments. Subsequently, huge volumes of private investment entered the scene. Oil windfall in the 1970s allowed the country to promote import substitution industry. The industries that emerged were highly tariff-protected and import-dependent. The industrial strategy that emphasized labor intensive exports was encouraged when the oil shocks hit the economy in the 1980s. Since then the Indonesian industrial sector is quite diverse. There are small companies that produce consumer goods and many rapidly growing large-scale companies and conglomerates (business group) which dominate their respective output and markets (Hill, 1996).

Table 7. Indonesia: Banking and Financial Indicators, 1990-1996

	1990	1991	1992	1993	1994	1995	1996
Bank lending to private sector (% of GDP)	49.7	50.3	49.4	48.9	51.9	53.5	55.4
Bank lending to property sector (% of total)	-	-	12.3	13.3	16.3	16.9	18.8
Bank lending to property sector (% of GDP)	-	-	-	6.6	8.8	9.5	11.1
Mortgage loans (% of GDP)	-	-	-	1.9	2.7	3.0	3.1
Non-performing property loans (% of total property loans)							
Construction	-	-	-	13.5	13.3	11.6	9.6
Real estate	-	-	-	8.1	5.8	4.5	3.7
Mortgage	-	-	-	3.2	2.7	2.7	3.0
Total property	-	-	-	9.24	7.9	6.5	5.7
Total credit	-	-	-	-	11.6	-	8.8
Non-performing loans (% of commercial banks loans)	4.5	9.2	-	14.2	12.1	10.4	8.8

	1990	1991	1992	1993	1994	1995	1996
Of which: bad loans (% of commercial banks loans)	-	1.7	-	3.3	4.0	3.3	2.9
Loan to deposit ratio (%)	118.2	130.7	129.3	132.4	134.9	137.7	131.0
Net foreign liabilities to total bank liabilities ratio (%)	0.9	0.7	2.2	4.9	5.8	3.8	2.8
Loan to assets ratio (%)	73.4	76.2	73.7	75.4	80.3	79.2	77.0
Cash assets to deposit ratio (%)	6.5	13.7	3.2	2.6	2.5	2.6	4.7
Loan growth rate minus GDP growth rate (%)	48.1	-9.9	7.7	6.9	5.7	4.0	4.7
Loan growth rate minus industrial production growth rate (%)	61.4	9.0	25.9	22.4	16.0	23.1	22.5
Stock market prices in property sector (indexes)	-	119	66	214	140	112	143
Stock market prices (indexes)	417	247	274	588	469	513	637

Sources: Corsetti*et al.* (1999), Hill (2000), and Prema-chandra and Warr (2002).

Corporate profitability and performance in selected Indonesian corporate sectors during 1990-1996 is shown in Table 9 and 10. The performance of public listed companies is quite satisfactory, although asset turnover is low. This performance is even better compared to those for state-owned companies for the period. The high debt to equity ratio for both publicly listed companies and state owned enterprises suggests that it is easy to obtain credit from financial intermediaries. A substantial part of corporate debt is denominated in USD and unhedged. Overall, the corporate performance measures show strong trends. The story is quite different when the analysis takes into account the way the corporate sector is financed and how the corporate ownership is concentrated and controlled.

Table 8. Indonesia: corporate indicators of Jakarta Stock Exchange, 1990-1996

	199	199	199	199	199	199	199
Publicly listed companies							
Number of firms			174	226	250	246	248
Growth (%)							
Sales growth	-	-	-	45.1	50.3	37.8	18.2
Value added share in GDP	-	-	3.7	4.6	6.0	6.9	7.0
Asset growth	-	-	-	48.5	64.8	37.1	33.8

	199	199	199	199	199	199	199
Financial ratios (%)							
Return on asset	-	-	3.4	3.5	3.5	3.5	3.2
Return on equity	-	-	12.6	12.5	12.0	11.3	10.7
Asset turnover	-	-	38.4	37.6	34.2	34.4	34.4
Ratio debt to equity	-	-	250.0	240.0	220.0	230.0	310.0
Stated owned enterprises							
Growth (%)							
Sales growth	-	-	-	16.4	9.1	25.1	-
Value added share in GDP	-	-	7.2	7.2	5.7	6.0	-
Asset growth	-	-	-	-	23.1	2.6	17.3
Financial ratios (%)							
Return on asset	-	-	21.1	24.1	28.0	28.3	-
Return on equity	-	-	8.8	7.0	6.6	8.6	-
Asset turnover	-	-	32.4	30.7	28.6	30.5	-
Ratio debt to equity	-	-	370.0	310.0	260.0	250.0	-
Top 300 conglomerates							
Growth (%)							
Sales growth	-	17.1	19.4	16.7	16.2	18.1	12.5
Value added share in GDP	12.8	12.7	13.4	13.4	13.4	13.3	12.8

Sources: Jakarta Stock Exchange.

Table 9. Indonesia: corporate indicators of World Bank survey, 1990-1996

	199	199	199	199	199	199	199
Operational margin							
Mean	-	0.386	0.360	0.362	0.358	0.345	-
Standard deviation	-	0.098	0.087	0.089	0.087	0.088	-

	199	199	199	199	199	199	199
Median	-	0.357	0.333	0.344	0.328	0.312	-
Number of firms	-	91	196	209	216	235	-
Return on asset (local currency and inflation adjusted)							
Mean	0.128	0.126	0.122	0.112	0.108	0.098	-
Standard deviation	0.116	0.114	0.105	0.082	0.073	0.068	-
Median	0.094	0.091	0.086	0.079	0.074	0.062	-
Number of firms	8	107	235	248	260	279	-
Real sales growth							
Mean	-	-	0.128	0.141	0.169	0.115	0.104
Standard deviation	-	-	0.189	0.227	0.243	0.196	0.216
Median	-	-	0.107	0.121	0.124	0.094	0.083
Number of firms	-	-	106	224	236	241	250
Capital growth (new investments as share of existing fixed assets)							
Mean	-	0.150	0.206	0.163	0.271	0.166	0.164
Standard deviation	-	0.254	0.327	0.362	0.382	0.245	0.284
Median	-	0.124	0.134	0.086	0.158	0.138	0.118
Number of firms	-	85	107	232	247	253	267
Leverage (total debt over common equity)							
Mean	-	1.943	2.097	2.054	1.661	2.115	1.878

	199	199	199	199	199	199	199
Standard deviation	-	2.89	2.99	3.15	2.62	2.95	2.13
		3	2	8	6	8	7
Median	-	1.78	1.82	1.81	1.76	1.84	1.82
		5	6	7	4	7	7
Number of firms	-	166	216	230	244	269	264

Sources: Claessens, *et al.* (1998).

Table 10. Indonesia: financing sources of publicly listed non-financial companies (% of total), 1986-1996

	1986-1990	1991-1996	1986-1996
Internal	36.8	16.0	17.3
Borrowings	17.3	39.3	37.9
Short-term	14.0	16.7	16.5
Long-term	3.2	22.6	21.4
Debentures and equity	26.5	23.3	23.5
Debentures	-	0.1	0.1
Equity	26.5	23.4	23.6
Trade credit	11.8	8.4	8.6
Others	7.6	13.0	12.6
Total	100.0	100.0	100.0

Source: Asian Development Bank (2001)

The pattern of corporate financing is parallel with the development of financial market instruments. When the government liberalized the banking industry at the early 1980s, companies considered alternatives to bank loans. In 1988 government allowed foreign investors to buy up to 49 percent of stocks of a public listed company; in 1994 foreign investors were allowed to own 100 percent of the country company except in certain strategic sectors. Despite this development in the capital market, at the end of 1980 finance companies emerged that offered financial services such as, leasing, credit cards, and consumer credit. Most banks took the opportunity to set up subsidiary finance companies. No prudential regulations applied to their activities, such as legal lending limits and capital adequacy ratio. During the 1990s finance companies increasingly channeled the inflows of foreign loans. Since then international funds became a significant source of financing for the corporate sector. Table 11 shows sources of financing of Indonesian publicly listed non-financial companies. High proportions of

equity and internal finance (retained earnings) were major financing source in the 1986 - 1990. This is in contrast to lower share of borrowings during the same period. The pattern of financing changed in the 1990s with corporate debts accounted for 39.3 percent during 1991 - 1996 besides equity financing which due to the surge in capital market activity following the 1988 reforms.

Quality of corporate governance is closely related to the corporate ownership structure. The most important elements of ownership structure are concentration, composition, and control. The pattern of Indonesian corporate ownership and control is shown in Table 12. Indonesia has only 0.6 percent of companies are directly widely held, while 67.1 percent of companies are family ownership. In terms of capitalization, the top family controls 16.6 percent of the total market capitalization while the top 15 families control 67.1 percent of the market. These figures suggest that the ultimate control of the corporate sector rest in the hands of a small number of families.

Table 12 makes clear that the share of family ownership increases for smaller size firms, i.e., from 60 percent to 93 percent. However, this increment of family ownership is not significant because many large companies are also controlled by families. Identifying the means through which ultimate control of Indonesia companies is strengthened; Table 12 shows that Indonesia's companies control is mostly enhanced through pyramid structures and management: 66.9 percent of the firms involve pyramid schemes control of publicly held firm to gain control of others. Almost 85 percent of Indonesia firms have managers who are family-related to the controlling owner.

Table 11. Indonesia: corporate ownership and control structure, 1996

		Corporations with ultimate owner			
	Widely held	Family	State	Widely held financial	Widely held corporation
Control of publicly listed companies by voting rights (%)					
10 % cut-off *	0.6	67.1	10.2	3.8	18.3
20 % cut-off	5.1	71.5	8.2	2.0	13.2
30 % cut-off	24.7	58.7	6.7	0.0	9.8
40 % cut-off	51.7	35.4	5.6	0.0	7.3
Control of publicly listed companies by market capitalization (%)	6.6	67.3	15.2	2.5	8.4
Control of publicly listed companies by size (%) **					

	Corporations with ultimate owner				
	Widely held	Family	State	Widely held financial	Widely held corporation
All firms	5.1	71.5	8.2	0.0	13.2
Largest 20	15.0	60.0	20.0	3.0	5.0
Middle 50	6.0	62.7	3.3	1.0	25.0
Smallest 50	0.0	93.0	0.0	6.5	6.0

		Total market capitalization that families control (%)			
	Average number of firms per family	Top 1 family	Top 5 families	Top 10 families	Top 15 families
Concentration of family control	4.1	16.6	40.7	57.7	61.7

	Cap = 20 % V ***	Pyramids with ultimate owners	Cross holding	Controlling owner alone	Management
Means of enhancing control (% of firms sample)	19.2	66.9	1.3	53.4	84.6

Note:

Number of firms is 178. * Percentage cut-off point means that if a firm has three owners, i.e., a family which control 20 %, a bank controls 10 %, and widely held corporation which controls 10 %, it is one third controlled by the family at the 10 % level, but it is fully controlled by the family at 20 % cut-off. The firm is widely held at higher cut-off levels.

** At 20 % cut-off level.

*** Cap = 20 % V refers to the average percentage of book value of common equity required to control 20 % of the value. Controlling owner alone means that there is no second owner holding at least at 10 %. Management means that the chief executive officer, board chairman, or vice chairman is a member of the controlling family. Pyramids structure is defined as owning a majority of stock of one corporation which in turn holds a majority of the stock of another.

Sources: Claessens, *et al.* (1998; 2000).

In sum, the pattern of Indonesian corporate financing supports the claim that family-based controlling shareholders relied on excessive borrowing to finance corporate expansion without diluting their control. Moreover, Indonesian corporate wealth is extremely concentrated in the hands of few families and relations between government and business are extensive. These facts reflect the failure of financial sector to channel funds to corporate sector efficiently due to weak prudential regulation and supervision, and inefficiency in the legal and judicial system that supported corruption.

Causes of corporate ownership concentration

Concentration of ownership was largely caused by bias in industrial policy, chronic cronyism, and high implicit government deposit insurance (McKinnon & Phill, 1999; La Porta et al., 2000). Domestic industrial policy favored capital inflows to special-interest industries. In this case, the government showed financial intermediaries the way to the vested-interest industry. For financial institutions it was a kind of warranty of investment return, and hence they could transfer the venture risks to the government. Government deposit insurance played a role in creating information asymmetries. Due to the crucial role of financial intermediary liabilities in the domestic payment system, the government guarantees the deposits to preserve payment funds. Hence, the financial institutions act if they are too big to fail, and that the government certainly bails them out. As result of all these factors, there was a tight link between the center of power and concentration of ownership. Sanctions for non-performance and bailouts were lacking.

Cross country study of Claessens, et al. (1999) and La Porta, et al. (1998) find a strong correlation between the share of the largest 15 families in total market capitalization and the efficiency of judicial system, the rules of law, and corruption (see Figure 6). This finding suggests that the corporate concentration in hand of a few families is major factor of inefficiency evolution in legal and judicial system. Corporation insider-control may also have contributed to the weak performance and risky investment of many Indonesia companies. Large shareholders are inclined to undertake risky project intended to generate high returns using borrowed funds. In case of Indonesia, the corruption and regulatory problems generated by high ownership concentration by families are likely to overwhelm its benefits. Family control is said to have positive impacts in that it allows group members in conglomerates to make strategic decision quicker. Coordination is easier because of informal communication channels exist. However, benefits are few and often dubious compared to the high costs of concentration.

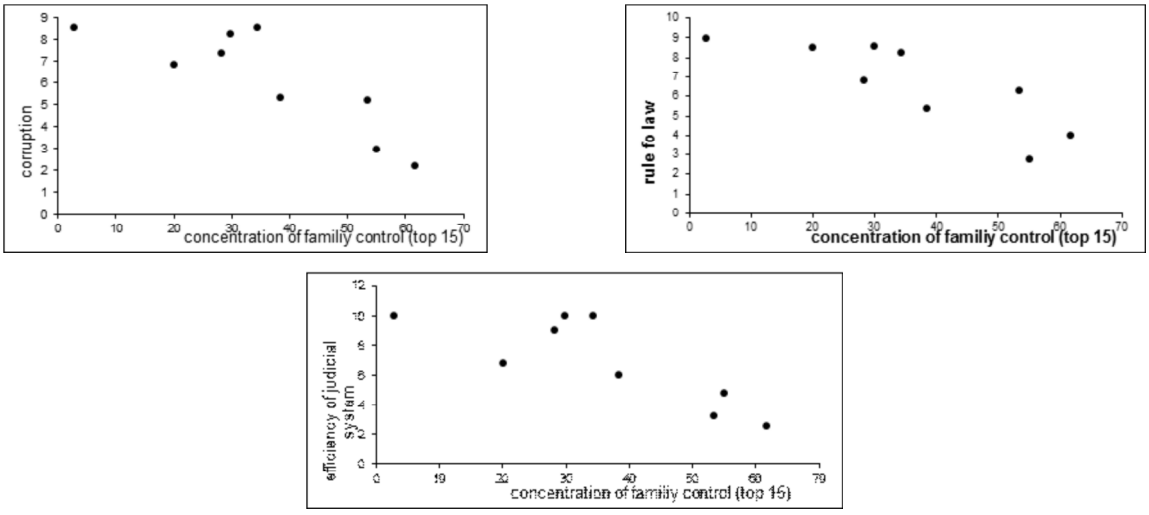

Figure 5. East Asia: judicial systems and corporate ownership, 1996

Note: The efficiency of judicial system, corruption, and rule of law are measured in index number that run from 1 to 10 being the best, most efficient, strongest rule of law, and least corrupt. Concentration structure is measured as share of total market capitalization controlled by top 15 families. Data is collected in December 1996 or the end of 1996 accounting year and for 2,980 publicly-traded companies including both financial and non-financial institutions. Sources: Claessens, *et al*.(1998;1999) and La Porta, *et al.* (1998).

Macroeconomic effects of banking: credit channel and vulnerability

Bernanke and Gertler (1989; 1995) and Bernanke and Blinder (1988), is devoted to the role of bank credit on the economy through balance sheet and lending channel. The balance sheet channel works because during an economy upturn many potential borrowers turn out to be more creditworthy as firm's cash flows rise and asset prices increase. Since bank credit is based on the borrower's achievement in certain financial ratios (collateral, interest rate coverage, and other liquidity flows), more credit is made available during economic boom, and thereby stimulates economic to grow faster. The lending channel through banking system is operative when financial market is segmented. Thus, additional bank credit allows firms and household to invest and consume more, inducing faster economic growth.

Kaminsky and Reinhart (1996) and Sachs et al. (1996), have also undertaken toward bank lending channel and the associated economic fluctuations in the context of an open capital account. The main conclusions of these studies that although the presence of international credit may result in lager cyclical fluctuations, the domestic banking sector is ultimately responsible for propagating and amplifying business cycles, and exacerbating vulnerability in emerging market economies. Thus, in the context of growing financial integration, bank can further exacerbate macro cycles. Moreover, the existence of domestic banking system in exacerbating capital movements from abroad in financially integrated economy magnifies the effects of external shocks. This happens since the domestic banking system transforms illiquid assets (short term deposits) to liquid assets (long term investment) which motivate foreign investors to lend more to recipient country. The provision of illiquidity however makes banks vulnerable to runs as predicted in Diamond and Dybvig (1983).

As described in the previous section, Indonesia firms are progressively more able to borrow abroad directly but such access remains the privilege of larger firms. Despite the progress made in the development of the domestic financial sector, most firms rely on domestic banks for non-internal source of finance. There are three channels through which the poorly regulated and supervised banking sector can exacerbate macroeconomic-financial vulnerability in the presence of large scale capital inflows; consumption financing, risky investment financing, and inducing asset price inflation (World Bank, 1997).

Lower costs of international borrowing and predictable exchange rates induce bank to lend domestically. Bank lending could affect both private investment and consumption. Although direct evidence is hard to obtain and as hypothesized by the credit channel story that economic activity is sensitive to the change in domestic credit, it is hard to see in Figure 7 whether the change in private consumption is sensitive to M1 or domestic credit. However, Figure 7 indicates that private consumption moves with domestic credit. With the experience in larger lending booms, over-consumption and larger current account deficits, the country showed a signal of greater macro-financial vulnerability.

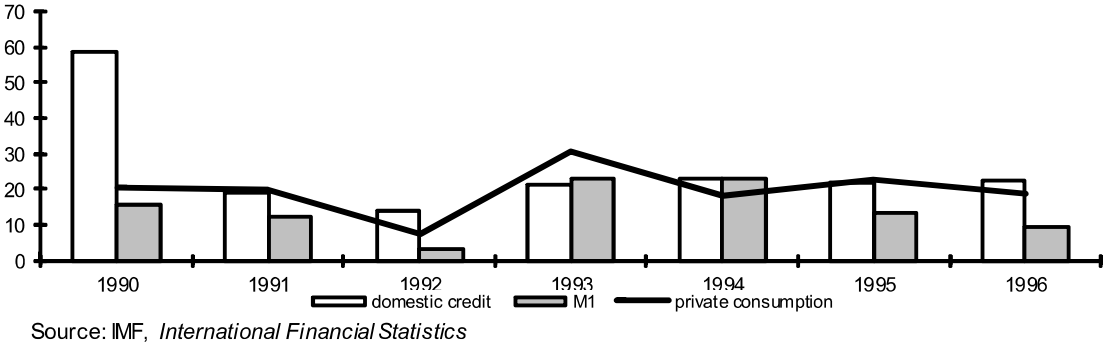

Figure 6. Indonesia: private consumption, M1, and domestic credit (% p.a), 1990-1996

In the episodes of rapid domestic and external financial sector liberalization, banks may also play role in asset inflation that can arise with large-scale inflows of private capital and lending booms. The rise in asset prices manifested through the prices of stocks and real estate leads to increase financial wealth, and thereby raising household's indebtedness and consumption. Real estate prices in Indonesia as depicted in Figure 8 prove unsustainable. If household begin defaulting on their debts, bank's non-performing assets may rise and value of collateral will be insufficient to cover bank's losses. Plunge in asset prices will position bank in fragile financial situation.

With regard to the possible contribution of banks to asset inflation, it is important to note that in Indonesia the domestic bank lending to the property sector and mortgage loans increased sharply (see Table 8). Figure 8 shows that the construction booms experienced by Indonesia. Banking sector becomes more exposed to construction business that characterized by long term debt repayment and high risk investment.

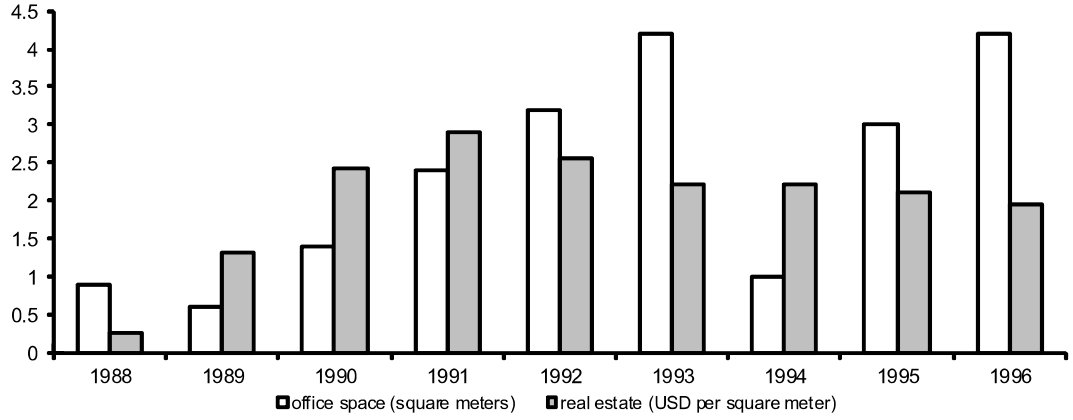

Figure 7. Indonesia: construction booms and real estate prices, 1988 - 1996

Sources: Gourinchas et al. (2001)

CONCLUDING REMARKS

In the wake of greater financial integration and rapid financial liberalization in the early 1990s, Indonesia experienced massive capital inflows. The structure of the capital inflows were mostly consisted by short-term and unhedged liabilities. Through the banking system, these capital inflows created domestic excess demand pressures. This domestic overheating generated a rapid buildup of vulnerability. Risks in on the one hand long-term non-tradable goods investment and unhedged short-term liabilities to assets and on the other hand in bank portfolios increased.

The vulnerability arose from a policy mix that led to higher differential between domestic and international interest rates, and from weaknesses and asymmetric information problems in the domestic bank and financial system. The exchange rate policy consisted of keeping the currency depreciating to favor non-oil exports. Monetary and fiscal policies were tight and pro-cyclical, respectively, and put the domestic interest rate under upward pressure. Thereby, the positive difference between the domestic interest rate and the foreign interest rate exceeded the exchange rate depreciation and triggered further capital inflows. In transmitting those huge foreign funds to the corporate sector, the banking sector played a major role. On the one hand, the banking sector managed the lending risk inadequately in the aftermath of financial reforms. This created more fragility in the financial system which can be seen from: (i) high growth rates of bank credit to the private sector (over lending); (ii) high bank loans directed to the property sector; (iii) high foreign exchange risk; and (iv) inadequate bank balance sheets (increases in non-performing loans). On the other hand, the role of the banks in transmitting foreign funds led to concentration in ownership and lending to business in one's own group. The key factor behind concentration was the perception that a group of corporations had become too big to fail and that the government would bail them out, if necessary. An additional explanatory factor for concentration was biases in industrial policy.

The country's macroeconomic and financial sector is fragile to likelihood that a shock will negatively affect market sentiment toward the country, triggering a portfolio shift toward safer abroad assets, reduction in aggregate credit, asset price deflation, and degradation in overall economic performance. The macro-financial risks became apparent at the onset of the Asian flu, the crisis that hit South-East Asia in 1997, and as the crisis worsened. The suddenness with which massive short-term capital inflows were reversed played an important role in the onset of the crisis. The crisis started with the currency and financial crisis in Thailand of March-June 1997 which spread rapidly to other Asian economies, including Indonesia. The interaction between factors that made Indonesia vulnerable to crisis and the way the crisis was managed are the main explanation of the severity of the crisis in Indonesia.

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