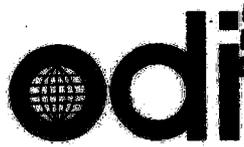


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MONETARY POLICY EFFECTIVENESS IN INDONESIA, 1974-1990

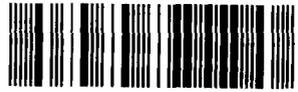
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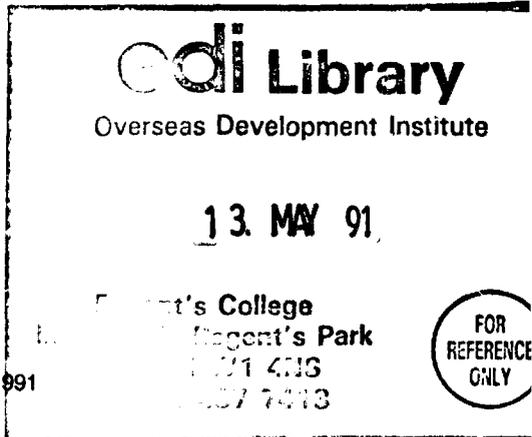


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WORKING PAPER 44

**MONETARY POLICY EFFECTIVENESS
IN INDONESIA, 1974-1990**

Christopher E. Lane, David C. Cole and Betty F. Slade



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Preface and Acknowledgements

ODI working papers present in preliminary form work resulting from research undertaken under the auspices of the Institute. Views expressed are those of the authors and do not necessarily reflect the views of ODI or supporting institutions. Comments are welcomed and should be addressed directly to the authors or project leaders.

This working paper is one of seven country studies prepared as part of a study of the role of monetary policy in primary product-dependent, low income countries. The objective of the general study is to examine what monetary policy can be expected to accomplish and the principal constraints upon its effectiveness. The country studies examine the development of monetary institutions, the determination of money supply and demand, and the objectives and experience of governments in implementing monetary policy in individual countries. Other case studies include China, Côte d'Ivoire, Kenya and Bangladesh. It is hoped that the final report will be published in 1991. The project is directed at ODI by Sheila Page. We are grateful for financial support from the Overseas Development Administration, the Rockefeller Foundation and the International Development Research Centre of Canada.

Christopher Lane is a Research Fellow at ODI. David Cole and Betty Slade, of the Harvard Institute for International Development, have been working in Indonesia on monetary policy.

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1. OVERVIEW

Recent Indonesian monetary policy experience can be classified under two distinct financial regimes characterised by contrasting monetary objectives and use of different policy instruments. The first regime of direct credit control and extensive Central Bank intervention in credit allocation (1974-1982) was associated with rapid real economic growth led by oil, gas and timber export expansion, but slow growth of the financial system. The more recent period of financial decontrol, wherein development of market-based instruments of monetary policy has occurred, has been paralleled by a decline in oil and gas export prices and earnings, and a reorientation of production toward other exports, including labour intensive and resource-based manufactures. Real economic growth has remained high on average (5.5% *p.a.* 1984-89), while the financial system has expanded dramatically.

Throughout the 1970s and 1980s Indonesia has been unusual among developing countries in that it has had minimal foreign exchange controls and it has avoided any domestic budgetary deficits.¹ Thus in the 1974-82 period, when oil export earnings and government revenues were both ample, the main concern of monetary policy was to curtail expansion of domestic credit and overall expenditure, while accumulating foreign exchange reserves. In the later period after 1983, when both exports and budgetary revenues were weaker, the concern shifted to attracting capital from abroad, protecting foreign exchange reserves and dealing with the tensions and shifts in expectations accompanying the structural transformation of the economy. As a consequence, monetary policy in this latter period has been characterised by frequent changes in instruments and approaches. An important factor in maintaining a supportive counter-inflationary fiscal policy has been the political continuity since 1965. The Soeharto regime inherited a zero growth, hyperinflationary economy which has remained a potent reminder of the costs of economic mismanagement to subsequent policy makers.²

The long-term objectives of monetary policy in Indonesia have been broadly a satisfactory rate of economic growth with moderate rates of inflation, a sustainable balance of payments and adequate foreign exchange reserves. Credit, interest rate and exchange rate policies have been utilised to achieve social or distributive objectives throughout the period studied. The intermediate objectives of monetary policy have varied considerably and included targeting monetary aggregates, interest rates and foreign exchange reserves.

We consider the factors influencing the choice of both primary objectives and intermediate targets by the monetary authorities. Section 2 describes the main elements of the financial system. Section 3 considers the experience of monetary control by direct instruments of credit and interest rate controls, and, in particular, the method of response to oil price increases in 1973 and 1979. The focus of Section 4 is on the development of money market instruments from 1983 and the successes and

¹ There is no authorisation to issue government debt in Indonesia.

² The political economy of policy making is analysed in Woo and Nasution (1989).

setbacks experienced in indirect monetary control of an open economy. In Section 5 we assess the effect of the open economy upon money demand. Finally we discuss the role of Indonesia's fiscal policy stance and international financial flows in the transition from administrative control and intervention to a relatively effective market instrument-based monetary policy.

2. THE FINANCIAL SYSTEM

2.1 Commercial banking

Prior to achieving actual independence in 1949 there were seven commercial banks, all foreign-owned. From 1960, driven by anti-Western feeling within Indonesia and a government commitment to state ownership, a process of nationalisation was begun.

Four of the five existing state-owned banks can therefore trace their origins back to foreign-owned banks in the pre-independence era. The fifth and largest state-owned bank, Bank Negara Indonesia (BNI), was established in 1946 as Indonesia's Central Bank but assumed a commercial banking role in 1954. The state-owned banks have had two, sometimes conflicting, functions: first, they implemented the Government's subsidised credit programme directing loans to priority sectors with cheap refinancing facilities from Bank Indonesia (BI) - the central bank - as so-called agents of development (Appendix I details the types of credits and refinancing ratio for March 1989). Second, the state-owned banks were, and continue to be, commercial banks in competition with private and foreign banks. During the 1980s, the Government has followed a policy that reduces the emphasis on the state-owned banks' developmental role and encourages them to respond more to market pressures: the extent of refinancing facilities available from BI has been slimmed down and barriers to entry in the banking sector removed.

At the beginning of the 1980s the five state-owned banks remained in a dominant position in the Indonesian banking system with 80% of assets of the deposit money banks (Table 1). During the 1980s they have faced strong competitive pressures from domestic private banks, largely as a result of deregulation, and their share of banking sector assets has dropped to under 70% in 1989. In October 1988, the so-called PAKTO reforms (Section 4.5 and Appendix II) increased the freedom of entry for both new domestic private banks and joint venture banks³ and initiated a new phase of competition between the state-owned banks and the rest of the commercial banking system.

Private Indonesian banks proliferated from the mid-1950s, although their functions were often quite limited. They have been often wholly-owned by and existed to service an industrial conglomerate. Some of the banks independent of major conglomerates are connected with the armed forces or public/parastatal organisations such as Bank Anghasa Putra (Air Force), Bank Deva Ratji and Bank Bhumi Bahari (Navy). Private banks were at times able to provide a source of cheap finance for conglomerates by borrowing excess funds from state-owned banks on the interbank market. Also private banks were able to grow somewhat faster than state-owned banks before 1983 partly because growth was from a small base and because interest rate controls upon state-owned banks (Section 3) were not applied to private banks. The relative expansion of private banks accelerated during the financial deregulation undertaken in the 1980s. Table 1 shows their share of total bank assets more than

³ Foreign banks were permitted entry to the Indonesian market in joint venture deals with existing domestic banks with up to 85% foreign ownership.

doubled (to 23%) between 1982 and 1989. Lippo Bank, part of the Lippo Group financial services conglomerate, is characteristic of the aggressive private bank approach to mobilising deposits after PAKTO. Its heavily advertised *Tahapan* savings scheme offered 15% interest (16-18% in other comparable maturity deposits) and lottery prizes. The effective cost of funds was reduced to around 12.5% by paying interest only upon the lowest monthly balance. Estimates of *Tahapan* deposit mobilisation by Lippo and other affiliated banks in the first operational year (1989/90) account for 4% of outstanding total time deposits of the whole banking system.⁴

**Table 1: Banking system: number of banks and banking offices
(position at 31 March)**

	Number of banks		Number of offices ^(a)		Share of assets	
	1982	1989	1982	1989	1982	1989
State-owned	5	5	712	818	80%	69%
Private	71	63	297	656	10%	23%
Foreign/Joint venture	11	11	20	21	7%	5%
Regional development	28	194	29	292	4%	3%
Savings	3	3	14	82		
Rural ^(b)	5,801	5,770				

- Notes:**
- (a) Bank offices comprise head offices, branch offices and sub-branch offices.
 - (b) Number of rural banks is equivalent to the number of offices and is composed of village banks, paddy banks and petty traders' banks.

Source: Bank Indonesia, Report For Financial Year 1982/83 and 1988/89.

Branches of foreign banks in Indonesia have lost part of their small market share during the 1980s as restrictions upon their expansion (and employment practices) discriminated in favour of national banks. Their operations are traditionally confined to trade and commerce transactions and few venture into the retail banking market. However, the PAKTO reforms in 1988 permitted an expansion in the number of banking offices and loosened regulations upon joint ventures with national banks. During 1989 foreign banks took advantage of these regulatory changes and expanded branch networks and new joint ventures were initiated, particularly by Japanese banks.

Regional development banks were largely created by provincial administrations in the early 1960s and act as localised government bankers. Lending activities have tended

⁴ Far Eastern Economic Review, 15 February 1990, p.80.

to be predominantly short-term although the original intentions were to supply longer term investment finance. Each bank is constrained in size by restrictions which confine operations to their respective provinces.

2.2 Rural banking

The 5,800 rural banks consist of *lumbung desa* (paddy banks) and *bank pasar* (market banks). Prior to 1989, they were supervised by the state-owned Bank Rakyat Indonesia (BRI) which also provided loan and deposit facilities. They are now directly supervised by Bank Indonesia. The *unit desa* or village unit of BRI is the most decentralised level of national banking and offers deposit and credit facilities at over 1,500 geographical locations principally at *kecamatan* or small district town level. Until 1983, the *unit desa* acted principally as 'cashiers for special government programmes' (Patten and Snodgrass, 1987:7) distributing subsidised credits for rice cultivation, and small and medium credits for rural entrepreneurs (Kredit Mini and Midi). These programmes typically lent at 12% and covered costs by administrative subsidies from the state budget and 100% refinancing from Bank Indonesia at 3% cost. Patten and Snodgrass suggest three factors which led to the introduction of new credit facilities closer to real market cost after 1983: first, the *unit desa* had no incentive to collect saving deposits which paid 15% (*i.e.* higher than lending rates) so that programme lending was limited by the level of subsidy. Second, previous research had indicated that credit availability was much more important to rural borrowers than the level of interest payments. Third, targeted credits *e.g.* for rice cultivation were becoming less appropriate as productive activities diversified in rural areas. Finally, with interest rate decontrol in 1983, BRI introduced a new program at the *unit desa* level to raise interest rates and expand rural credit without additional subsidies. The KUPEDES scheme (begun in 1984) lent at 2.0% per month flat (*i.e.* on the original not the declining balance) with 0.5% per month refunded if all loan instalments are made in full and on time. The KUPEDES scheme and a parallel deposit mobilisation program known as SIMPEDES, have grown rapidly and are able to cover the full cost of funds (without refinancing). By March 1989 credit outstanding under KUPEDES stood at Rp 607 billion or 14% of all rural credit.

2.3 Other formal sector financial institutions

There were fourteen so-called non-bank financial institutions in 1989 which operate in the money and capital markets. Their general function is to raise funds by the issue of promissory notes to other financial institutions and to carry out investment predominantly in corporate loans or purchase of corporate securities. Since 1983 there has been growth in insurance companies and also leasing companies as foreign firms have taken advantage of joint-venture opportunities. Also many pension funds have been established as a result of income tax changes in 1984 permitting tax exemption of pension contributions. So far there are no laws or regulations covering pension fund operations and information on their activities is limited. They are, however, frequently cited in the local press as major investors in new companies and financial institutions.

2.4 Capital market

Until the end of 1988, the number of share issues and level of trading upon the Jakarta stock exchange (founded 1977) were relatively low. Capital market reforms in December 1987 and October and December 1988 simplified listing requirements, allowed over-the-counter trading, provided access by overseas investors to domestic capital markets and permitted the establishment of private stock exchanges (Appendix II). As a result stock market activity has escalated rapidly and resulted in a shift of risk bearing from commercial bank lending to a wider range of equity holders. Regulatory reforms in the capital markets have been pursued in parallel with those of the banking sector. For example, the attractiveness of equity investment has been increased by the implementation of a previously deferred tax upon bank time deposits.⁵

2.5 The informal sector

Rural informal credit is thought to be substantial but is, by its very nature, unrecorded. In order of importance⁶, intra-family transfers are probably the largest component of informal credit, followed by traders' credit from wholesaler to retailer and retailer to customer. Next in importance are rotating savings and credit schemes or *arisan*. Informal finance is also obtainable under the *gaduan* system where the produce of land is taken until a loan is repaid, or the Javanese *ijon* system where a share of the crop is taken in place of interest. In these latter systems the creditor bears some repayment risk.

In the urban sector similar schemes exist for financing both consumption and small scale investment but the most substantial informal market is the offshore market. The removal of capital controls in 1971 together with the proximity of Singapore, a major international financial market has encouraged substantial offshore holdings and borrowings in foreign currency. In many respects monetary policy is aimed at influencing the extent and direction of the flow of funds into and out of overseas accounts or Jakarta dollar deposits. In Section 6 we discuss the influence of the open capital account upon monetary policy operations.

⁵ In Section 4 we discuss the experience of developing central bank securities (SBI) and commercial paper markets (SBPU) and their relation to the conduct of monetary policy.

⁶ Estimates provided by Richard Patten.

3. MONETARY POLICY IMPLEMENTATION 1974 TO 1982

3.1 Stabilisation by intervention, 1974-78

Indonesia's first development plan (fiscal years 1969-1973) was preceded by a successful economic stabilisation programme (1966-68) which reversed negative growth, eradicated hyperinflation, liberalised foreign exchange controls on capital movements and created a partially convertible Rupiah currency. The subsequent economic recovery of Indonesia during the First Plan period was, for example, cited by Shaw (1973) and McKinnon (1973) as an example of successful financial liberalisation.

In 1974, immediately following the first inflationary effects of booming oil prices on the Indonesian economy, the monetary authorities, with the blessing of the IMF, imposed direct credit controls on all banks as the principal means of controlling domestic monetary growth. Inflation (using the GDP deflator) had accelerated from 12.1% in 1972 to 34.5% in 1973 as a result of monetary expansion and structural factors, including a drought-induced rise in food prices. The sharp rise in oil prices during 1973/74 added a new expansionary twist to both growth and inflation, with the latter rising to 47.1% in 1974 (see Table 2).

Table 2: GDP, real growth and inflation, 1972-83

<i>Year</i>	<i>Nominal GDP Rp bn</i>	<i>Real GDP Rp bn</i>	<i>Real GDP growth %^(a)</i>	<i>Inflation rate %^(b)</i>	<i>State-owned bank deposit rate %^(c)</i>
1972	4564	40329	10.9	12.1	18
1973	6753	44383	10.1	34.5	15
1974	10708	47875	7.9	47.1	18
1975	12642	49094	2.5	15.1	15
1976	15467	53139	8.2	13.0	15
1977	19033	56870	7.0	15.0	12
1978	22746	58123	2.2	16.9	9
1979	32025	61473	5.8	33.1	9
1980	45446	66799	8.7	30.6	9
1981	54027	71535	7.1	11.0	9
1982	59633	71297	-0.3	10.7	9
1983	77676	77676	8.9	19.6	(d)

Notes:

- (a) Constant 1983 prices.
- (b) Measured by GDP deflator.
- (c) Year end.
- (d) Left to banks' discretion.

Source: Central Bureau of Statistics, Indonesian Statistics various issues and Bank Indonesia, Monthly Report.

From 1974 until 1983, the Indonesian financial scene was characterised by increasing government and central bank controls, negative real interest rates and widespread use of subsidised credit schemes.⁷ Although Indonesia during this period exhibited many features of a repressed financial system, buoyant oil exports, the government balanced budget policy (see Section 6), relatively low inflation and easy access to foreign financial markets minimised the long-term damage of domestic financial repression to the Indonesian economy.

(a) Policy instruments

Credit ceilings on each bank were the dominant monetary policy instrument from 1974 until mid-1983. In addition there were reserve requirements for all banks and interest rate controls on state-owned banks, whilst the private banks could set interest rates freely (Section 4.2 discusses the state-owned banks' response to the lifting of interest rate controls). The state-owned banks' deposit rates were rarely changed (twice in 1974, once in 1977 and 1978) and the real deposit rate was negative in each year apart from 1976 and 1977. Longer term deposits were also subsidised by the government by between 6 and 9 percentage points in 1974, falling to 1.5-4.5 percentage points after 1978. Therefore, the main focus of interest rate policy was to lower the real cost of borrowing.

Reserve requirements were largely redundant for domestic credit purposes as credit ceilings were the effective constraint on bank lending. With the open capital account system, banks were able to place abroad any excess funds over their required reserves and therefore reserve requirements functioned as a limit to funds placed abroad. To limit such outflows Bank Indonesia paid interest upon excess reserves after April 1974. Domestic financial savings however still tended to seek better returns abroad, in view of the negative real deposit interest rates at home and the lack of interest of banks in raising more deposits which they could not lend because of the credit ceilings. From around 1978, fears of, and the eventual implementation of, devaluation of the Rupiah also created incentives to hold excess liquidity in foreign currency.

Monetary policy also gave considerable attention to directing the limited amount of domestic credit towards priority sectors of the economy. This was attempted through a complicated system of Bank Indonesia refinancing facilities called 'liquidity credits', giving varying rates of discount for many different categories of borrower and type of credit (Appendix I). Liquidity credits were not used as a method of monetary control (in contrast to the system used in the CFA franc zone for example) but as a system for distributing subsidies to specific interest groups and the banks. In the management of the central bank's asset sheet, they have been treated as 'autonomous factors' rather than assets to be adjusted as a control mechanism (Binhadi and Meek, 1988).

During the 1970s, monetary policy instruments were used principally to reduce the expansionary and inflationary effect of higher oil prices and foreign exchange earnings.

⁷ The central bank assumed default risks on subsidised credit.

From 1973 to 1974 for example, the ratio of the current account to GDP switched from -2.9% to +2.3%, and the fixed exchange rate to the US Dollar prevented deflationary adjustments to the exchange rate. To stabilise macroeconomic conditions during and after the oil export boom, comprehensive credit controls and slightly higher deposit rates (15% to 18% on 12 month deposits) were introduced in April 1974.⁸

Because of the government commitment to balanced budgets (which had been introduced in 1967) fiscal policy had only a modest deflationary impact in 1974 and was expansionary in 1975 and 1976. The formulation of five year plans (known as *Repelita*) with detailed programming of tax and non-tax revenue, foreign aid and borrowing are a manifestation of intentions not to utilise domestic deficit financing sources, and a reasonable safeguard against imprudent levels of foreign borrowing. Consequently Indonesia has maintained substantial lines of undrawn credit with commercial foreign lenders throughout the 1970s and 1980s. Fiscal balance policies acted as a constraint to inflationary financing if income fell, but were a constraint on curtailing expenditure if income (and taxes) rose. Thus the expansionary impetus to domestic money supply from the 1973-74 economic expansion was not sterilised by fiscal policy changes at the time, and domestic inflation correspondingly rose.

However the monetary stabilisation policies were quickly effective. Real intermediation increased (quasi money/GDP rose from 4.3% 1974 to 6.1% 1976), inflation slowed to 15.1% in 1975, credit growth was kept well within target ranges and real deposit rates rose above zero in 1975 and 1976. The combination of increasing demand for real money balances whilst restricting domestic money supply ensured that foreign exchange holdings rose correspondingly.

While credit controls may have contributed to holding down the rate of inflation from 1975 through 1978, they also appear to have subsequently curtailed the real growth of the banking system. The ratio of broad money to GDP remained practically constant at .155 from 1976 through 1978, dropped to .150 in 1979 and then began a steady rise which accelerated after the policy changes of 1983 (see Table 8).

The rationale for the introduction of extensive direct credit controls was actually quite different from the reasons for their retention for nearly a decade. The introduction of direct controls was a response to the ineffectiveness of reserve requirements in curtailing commercial bank lending (Asian Development Bank, 1987:85).⁹ Reserve requirements were 30% of commercial bank liabilities up to 1977 but this was still lower than the level of excess liquidity in the banking system.

⁸ A subsidy of 8% and 15% was paid on 18 and 24 month deposits respectively.

⁹ There was an upper limit to the level of reserve requirements which could be feasibly implemented because the Indonesian government was keen to reduce the real cost of borrowing, particularly for small borrowers.

Table 3: Indicators of financial intermediation, 1972-83
(end year money aggregates as % of GDP)

Year	(1) Currency	(2) Demand deposits	(3) Quasi money*	(4) (1)+(2) Narrow money	(5) (3)+(4) Broad money
1972	5.09	3.80	4.12	8.90	13.02
1973	4.99	3.91	4.23	8.90	13.12
1974	4.13	3.71	4.31	7.84	12.15
1975	4.48	4.48	5.22	8.97	14.19
1976	4.62	4.86	6.08	9.48	15.56
1977	4.78	5.02	5.50	9.80	15.30
1978	5.11	5.15	5.45	10.26	15.71
1979	4.45	5.26	5.27	9.72	14.99
1980	4.40	5.81	5.51	10.21	15.72
1981	4.40	6.76	5.56	11.16	16.71
1982	4.70	6.70	6.33	11.40	17.73
1983	4.29	5.45	9.13	9.74	18.88

Note: Quasi money defined as time plus savings deposits.

Sources: Bank Indonesia, Monthly Report various issues.
Bank Indonesia, Weekly Report various issues.
Central Bureau of Statistics, Indonesian Statistics various issues.

During the whole period up to 1983 it appears that domestic credit targets were set in a residual fashion with the influence of the government budget and balance of payments upon money and credit assumed to be fixed exogenously. Overall monetary growth was targeted by taking into account target GDP growth and the inflation rate judged to be tolerable (Bank Indonesia, 1989). The allocation of credit growth ceilings (and also targets for net domestic assets of commercial banks) was under the direction of Bank Indonesia. Table 4 demonstrates that the implementation of credit targets in the initial years was successful relative to the targets set. Domestic asset growth targets were actually underachieved in 1974/75 and 1975/76 as a result of cautious bank lending because credit ceiling allocation was linked to performance against ceilings in previous years and there was close supervision of adherence to ceilings by Bank Indonesia.

Although the stance of monetary policy was relaxed in some respects as early as December 1974, when inflation had begun to recede (12 month deposit rates returned to 15% and subsidies on longer term deposits reduced), the system of centralised control was maintained until new financial reforms were enacted in 1983. Direct control by the Central Bank is the main characteristic of monetary policy implementation during this period.

Table 4: Monetary policy targets, 1974/75-1982/83
(% change)

Year ending March 31	Growth of domestic assets ^(a) All Banks			Growth of domestic liquidity ^(b)		
	Target	Actual	Difference	Target	Actual	Difference
1975	31.1	25.9	-5.2	37	32	-5
1976	33.5	24.9	-8.6	39	42	+3
1977	24.0	26.4	2.4	31	26	-5
1978	18.7	19.9	1.2	25	15	-10
1979	21.3	25.7	4.4	20	27 ^(c)	+7
1980	22.1	25.3	3.2	23	40	+13
1981	30.7	32.6	1.9	na	36	
1982	41.2	41.2	-0.0	na	28	
1983	40.4	38.8	-1.6	na	21 ^(c)	

Notes: (a) Domestic assets = bank loans + other assets;
 (b) Domestic liquidity = money + quasi money;
 (c) Domestic liquidity revalued for effects of devaluation.

Source: Bank Indonesia, Annual Report, various issues.

The inadequate state of development of the financial and banking system was one of several factors which prevented the introduction of more indirect market-based methods of monetary control at this time. The balanced budget policy of the government meant that the central bank had no government paper with which to conduct open market operations and hence influence the path of short-term interest rates. The banking sector was oligopolistic, being dominated by the state-owned banks, which provided little optimism that interest rates would adjust to reflect the real scarcity of funds. Politically, the extensive level of government ownership and control in the economy reflected a general interventionist bias to economic policy and a reluctance to rely upon market-based control mechanisms. Finally, the abundance of financial resources generated by the oil boom led the government to focus primarily on allocation of those resources to desired uses rather than on improving the efficiency of the financial system itself.

As the system of direct control became more established the ceilings upon credit growth were employed to affect the distribution of credit as well as its volume, by granting discriminatory increases in credit ceilings to banks. Foreign banks, for example, benefitted little from the administrative system of credit ceiling allocation. The rationale for selective credit intervention was to subsidise not only large government-owned or favoured enterprises but also small indigenous entrepreneurs (*pribumi*). This satisfied a political objective of maintaining a nationalist power base which had been shaken by anti-Chinese riots in 1974. Also President Soeharto was of peasant origin so, as Woo and Nasution (1989)

propose, directed credit programmes were seen to be tackling genuine concerns of the ruling elite for the alleviation of rural poverty. However, by funnelling directed credit almost exclusively through state-owned banks the liquidity credit system maintained the dominance of the state-owned banks in commercial banking.

The targets for commercial bank assets (credit and other items net) were fairly closely followed from fiscal years 1976 to 1978 with asset expansion less than 5% over target (Table 4). Monetary growth was slower than had been anticipated because banks had few incentives to raise deposits when their lending was constrained by credit ceilings. In December 1977 reserve ratios were lowered and the availability of subsidised credits from Bank Indonesia increased in order to stimulate domestic investment and monetary growth. During the 1978 fiscal year monetary growth was higher than anticipated largely owing to a 34% devaluation which increased the Rupiah value of local dollar deposits.

However credit ceilings were relatively effective compared to reserve requirements in controlling credit growth and dampening inflation in the 1970s. The combination of excess bank reserves and low deposit interest rates encouraged offshore financial intermediation, which also served to reduce the expansionary effect of the balance of payments upon the money stock.

3.2 The second oil shock, 1979-82

In 1979, Indonesia experienced a second external shock from sharp increases in oil prices. It was in many respects similar to the previous oil price shock in 1973-74, although the policy responses were somewhat different. Table 5 compares macroeconomic variables for the year preceding each shock, two years of shock and one post-shock year. Although the two events were not perfectly synchronised there is sufficient similarity in the cycles to permit a meaningful, if approximate, comparison of causes and effects.

The two shocks differed in magnitude. Fuel export prices for Indonesia rose by 42 and 315% in 1973 and 1974, respectively, for the later shock by 44 and 64% in 1979 and 1980 (see Table 5). In both cases petroleum and associated products were by far the most significant export item, accounting for 51% of exports before the first shock and 64% before the second shock. Higher prices for petroleum products then raised fuel trade dominance further during the shock years. During each period the fiscal stance was broadly neutral with small overall deficit/GDP ratios. The exchange rate regime differed slightly during these periods. During the first oil shock the Rupiah was pegged at a fixed rate to the US dollar (Rp 415/\$). In the later period a devaluation of 34% was implemented in 1978, the year preceding the second shock, and thereafter a peg to a currency basket allowed for a depreciation of the exchange rate only marginally by 3% between 1978 and 1981.

In each case the shocks had inflationary effects. Inflation (expressed by the GDP deflator) rose from 13% in 1972 to 33% the year after and from 11% in 1978 to 35% the following year. Using the consumer price index, which is less influenced by the effects of the oil price rise than the GDP deflator, Table 5 shows that the increase in

inflation in 1973 was far more substantial than in 1979. In 1974, retail prices rose at a higher rate than the previous year, but at the same rate in the comparable year (1980) during the second shock. Although some of this differential can be attributed to the greater magnitude of the first shock and accompanying inflation from reduced food supply, the differing role of monetary policy in each case has been an important contributive factor.

Table 5: Comparing the oil price shocks: economic indicators

	<i>Change in fuel export price %</i>	<i>Broad money growth %</i>	<i>CPI %</i>	<i>GDP deflator %</i>	<i>Domestic credit %</i>	<i>Foreign assets Rp bn</i>	<i>Interest rate*</i>
Pre-Shock							
1972	11.3	48.7	6.7	13.3	33.7	221	18
1978	0.8	22.0	8.2	10.9	4.5	1868	9
Shock							
1973	42.1	42.8	30.8	32.9	64.7	295	15
1979	44.2	35.0	18.2	34.8	8.5	3509	9
Shock							
1974	314.9	46.3	40.6	47.3	41.3	661	18
1980	64.0	49.4	18.0	31.9	10.9	6570	9
Post-Shock							
1975	-2.7	39.1	19.0	12.4	47.6	72	15
1981	12.5	25.9	12.2	11.2	7.3	6838	9

Note: State-owned bank 12 month time deposit.

Sources: Central Bureau of Statistics, Economic Indicators various issues; and World Bank (1990), World Tables 1989/90.

The clearest difference was in the rate of credit growth, which accelerated from 33% in 1972 to 65% in 1973 and remained at over 40% in 1974 and 1975. During the second oil price shock domestic credit growth only rose moderately from 5% in 1978 to 9% in 1979. The difference in credit growth is all the more surprising when the rates of monetary growth are compared: monetary growth was not appreciably faster during 1973-74 than in 1979-80, *i.e.* in the years during which the shocks were felt strongest. Correspondingly, control of credit with similar rates of monetary growth meant that the banking system was more rapidly accumulating stocks of foreign assets during the second shock than the first. Between 1972 and 1975 the stock of foreign assets fell by two thirds after an initial augmentation. During the second shock reserves increased four-fold between 1978 and 1981, excluding minor revisions for exchange rate changes in the intervening period.

What may appear confusing is that the weak control and rapid expansion of commercial bank credit alone in 1978-81 (shown in Table 4) coincided with low rates of overall domestic credit growth (shown in Table 5). The key point is that the credit ceilings applied only to commercial banks. Consideration must be given to net Bank Indonesia credit to government and the restrictive effect of accumulating government deposits. The slower growth of overall credit, and the associated lower rates of inflation can, in large part, be attributed to the rapid increase in government deposits at the central bank which financed the increase in subsidised credits without imparting an expansionary impetus to monetary growth.¹⁰

During the first oil shock, net credit to government decreased in 1973 and 1974 but bounced back in 1975 to a level higher than before the oil shock (Table 6). During the second oil shock, government deposits showed strong growth in each of the two shock years and the first post-shock year and in total their increase was greater than the entire increase in credit to the private sector. The rate of accumulation of government deposits, and correspondingly of foreign assets of both the central bank and the commercial banks, was such that the credit ceilings for commercial banks imposed between 1979 and 1982 were on several occasions revised in mid-year to allow a more vigorous expansion of credit to non-governmental borrowers in line with movements on the balance of payments, inflation and reserves.

The remaining question is: how did the Indonesian government manage to accumulate deposits and effectively sterilise the foreign exchange inflow during the second shock but not the first when the overall fiscal stance appeared to be the same?

First, government savings (current revenue less current expenditure) during the second oil shock increased steadily from 7.9% of GDP in 1978 to 12.7% of GDP in 1981 but remained at about 5% of GDP during the first shock (Table 6). Higher savings permitted a higher level of development or capital expenditure, other things being equal, during the second shock. If this higher level of development expenditure had actually been implemented no effective sterilisation would have occurred. However, the rate of increase of development expenditure commitments, which were largely assigned to state-owned construction companies, exceeded the implementation capacity. Foreign construction firms were barred from entry which also weakened the supply response. To illustrate, in 1973 and 1974 development expenditure in constant prices increased by 7% and 5%, respectively. In contrast, at the height of the second boom, constant price expenditure increased by 27% in both 1979 and 1980. Whilst technically spent in fiscal accounts, government deposits accumulated as committed, but actually unspent, development expenditures in the government account at Bank Indonesia. The intention had been explicitly to sterilise the foreign exchange inflows and these fortunate circumstances assisted in preventing a more substantial expansion of net domestic credit and expenditure.

¹⁰ An additional factor was that state-owned banks were encouraged by Bank Indonesia to hold additional foreign exchange reserves with the funds freed up by the reduction of reserve requirements in 1977.

Table 6: Comparing the oil price shocks: credit and government operations

	<i>Credit to:</i>					
	<i>Govt</i>	<i>Other official entities</i>	<i>Private sector</i>	<i>Other financial institutions</i>	<i>Govt savings/GDP</i>	<i>Govt deficit/GDP</i>
	<i>Rp bn</i>	<i>Rp bn</i>	<i>Rp bn</i>	<i>Rp bn</i>	<i>%</i>	<i>%</i>
Pre-Shock						
1972	9	2	592	0	5.1	-2.6
1978	-462	678	2173	67	7.9	-3.3
Shock						
1973	-16	4	947	4	4.8	-2.4
1979	-1163	893	2855	19	9.7	-2.4
Shock						
1974	-137	1.1	1377	42	5.1	-1.6
1980	-2746	1359	4254	26	10.3	-2.4
Post-Shock						
1975	51	201	1115	45	6.2	-3.7
1981	-4691	1791	5942	20	12.7	-2.2

Sources: As for Table 5.

3.3 The move to reforming instruments of monetary policy, 1981-83

1981 was a year of good growth (7.1%) and inflation fell to 12.2%. The decline in oil prices in 1982 resulted in the only year of negative change in GDP since the mid-1960s and in an abrupt deterioration in the balance of payments. Monetary policy was unable to respond rapidly to the income change. The long-term nature of central bank refinancing meant that it was difficult to contract this over short periods, and this reduced the effectiveness of the lower credit ceilings. The decline in real income and foreign exchange earnings led to the reorientation of macroeconomic policies in the following year. By 1982, it was realised that high economic growth could not be sustained by oil earnings alone and a series of measures was implemented to increase non-oil exports, including relaxed export credit terms, higher volumes of export credit refinancing facilities and a loosening of export regulations. The cutback in government development expenditures announced in January 1983 was the fiscal response to lower oil prices and revenues. The 38% devaluation in March 1983 demonstrated the use of the exchange rate to make non-oil exports more competitive and to attract new foreign investment to finance the export drive.

The government recognised that the system of credit and interest rate controls and extensive refinancing by Bank Indonesia also impeded the growth and efficiency of the financial system, thus a major focus of subsequent reforms was to increase competition in the banking sector and to reduce or eliminate the role of the central bank in credit allocation and control.

4. MONETARY POLICY IMPLEMENTATION 1983 TO 1990¹¹

4.1 Overview

From 1983, in parallel with a series of market oriented fiscal, financial, trade, foreign investment and exchange rate reforms, monetary policy has shifted from direct controls to increasingly indirect instruments of intervention. Explicit monetary and credit targets were abandoned, interest rate ceilings removed, and central bank directed credits reduced. New money market securities have been issued by the Central Bank since 1984, the Central Bank has become a buyer of commercial bank (and NBF1) endorsed paper and of foreign exchange swap contracts (introduced in 1979). All three of these instruments have been used to influence the supply of base money, interest rates and the demand for foreign exchange.

Initially the Central Bank set the interest rates at which it was willing to buy or sell these monetary policy instruments, but over time it has moved toward more market-oriented determination of their rates. By 1990, Central Bank monetary management centred upon daily adjustments of the exchange rate and the swap rate, as well as flexible adjustment of sales of its securities (SBIs, Section 4.2), purchases of trade bills (SBPUs, Section 4.3) or repurchase of its own securities, to adjust the supply of base money and thereby influence short-term interest rates (see Binhadi and Meek, 1988).

The evolution from fixed to flexible interest and exchange rates has been erratic as foreign capital flows (responding to oil price changes and other shocks or fears) have forced retrenchment. Sudden large devaluations in 1983 and 1986 planted seeds of distrust in the continuity of exchange rate policy and imposed a high premium on Rupiah-denominated assets. A strong base money contraction in July 1987 succeeded in reversing a speculative foreign exchange outflow and restored greater confidence in exchange rate management. Since then a steady, gradual rate of depreciation of the exchange rate against the US dollar, combined with more skilful management of domestic monetary policy instruments, has generated greater confidence in the Rupiah and reduced the differential between Rupiah and dollar interest rates, reflected in the foreign exchange swap premium.

Fiscal policy and foreign assistance (grants and loans) have been supportive of domestic monetary stability in the period since 1983. Government development expenditure has been curtailed as the level of domestic revenues declined and increased foreign assistance has helped to fill the external gap caused by declining oil export earnings. For example, in Table 7 the sharp fall in oil revenues in 1986 shows up as a decline of government savings of Rp 4.7 trillion, development expenditure (plus budget surplus) fell by Rp 2.5 trillion and gross foreign assistance rose by Rp 2.2 trillion. The final column shows domestic borrowing from Bank Indonesia (including the foreign borrowing account) which increased by Rp 2 trillion. The effect of external shocks upon the monetary system and domestic prices was therefore lessened by rapid fiscal adjustment, helped admittedly by ready access to foreign aid and lines of credit.

¹¹ See Cole, D.C. and Slade, B.F. (1990a and 1990b) for a detailed account of money market development during this period.

Table 7: Government development expenditure and financing
(Rupiah '000 billion)

Fiscal year beginning 31 March	Development expenditures ^(a)	Source of finance:		Memorandum item:
		Government savings	Foreign aid ^(b)	Financing from Bank Indonesia (net) ^(c)
1983	9.90	6.02	3.88	
1984	9.95	6.48	3.48	2.65
1985	10.87	7.30	3.57	-1.31
1986	8.33	2.58	5.75	2.00
1987	9.48	3.32	6.16	-1.79
1988	12.26	2.27	9.99	-0.82
1989 (budget)	13.13	1.80	11.33	

Notes: (a) Includes cash surplus.
(b) Includes foreign loans and grants.
(c) Includes foreign borrowing account.

Sources: Bank Indonesia, Monthly Report; Central Bureau of Statistics, Economic Indicators, various issues.

As a consequence, for the six years from 1984 through 1989, inflation has been moderate (averaging 7.1%), real growth of GDP has been relatively good (averaging 5.5%), and foreign exchange reserves have been sufficient to withstand occasional speculative attacks (Table 8). Growth of the financial system has also been very rapid, as indicated by the rise in the ratio of M2 to GDP from 17.7% at the end of 1982 to 35.4% at the end of 1989. Because of the open foreign exchange system it is not clear how much of this increase in the M2/GDP ratio reflected an increase in financial savings, and how much was simply a repatriation of financial assets held abroad, but it is clear that there was increased willingness to hold domestic, Rupiah-denominated financial assets.¹²

In the following discussion we present a detailed description of the changes in monetary policy instruments and approaches since June 1983, and a qualitative analysis of their effects.

¹² The factors influencing increased intermediation are discussed further in Section 5, but a key factor has been a much higher level of real interest rates which rose from 2% in June 1983 to fluctuate around 8% between 1985 and 1989 (3 month deposit rate less CPI).

Table 8: GDP growth, inflation and monetary ratios, 1983-1990
(year end, %)

<i>Year</i>	<i>Real GDP growth</i>	<i>Inflation rate</i>	<i>Quasi money /GDP</i>	<i>Broad money /GDP</i>	<i>Official foreign assets net Rp billion</i>
1983	8.9	19.6	9.13	18.88	4608
1984	6.7	8.2	10.42	19.99	6583
1985	2.5	5.3	13.47	23.91	6257
1986	5.9	-0.1	15.59	26.97	3577
1987	4.8	15.9	17.02	27.21	9012
1988	5.7	5.9	19.80	30.12	8410
1989	7.2	7.0	23.52	35.37	7823 (10/89)

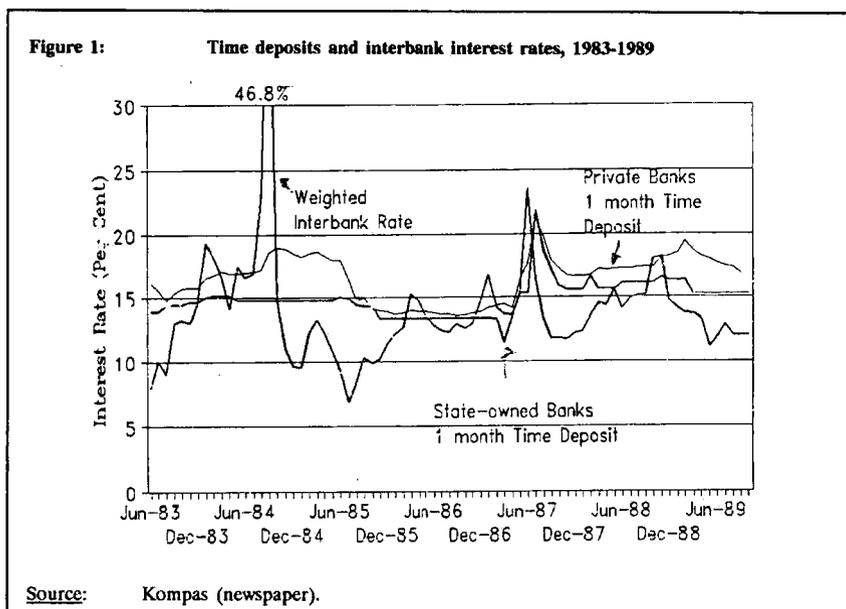
Sources: Central Bureau of Statistics, Indonesian Statistics various issues and Bank Indonesia, Monthly Report, various issues.

4.2 June 1983-August 1984: Removal of credit ceilings and emergence of the interbank market

On June 1, 1983, the Indonesian Government announced the removal of credit ceilings and eliminated most interest rate controls on state-owned banks. In place of credit ceilings Bank Indonesia had yet to develop money market instruments to influence short-term interest rates and reserve holdings of commercial banks. To reduce the possible expansionary effects of the removal of credit ceilings, 60% of subsidised 'liquidity' credits outstanding in March 1983 were made ineligible for renewal. However, the termination of some categories of liquidity credit led to substitution of other categories. The amount of liquidity credits continued to grow, but at a slower rate.

The new government policies allowed the state-owned banks to raise their deposit and loan interest rates. Although the initial increase of state-owned bank rates was modest (Figure 1), all banks began to take a new interest in mobilising Rupiah deposits to support new lending. This initiated the process of financial deepening which continued for the remainder of the decade. The demand for Rupiah loans also increased as borrowers came to perceive the higher cost of dollar loans resulting from the potential depreciation of the exchange rate.

Private banks soon discovered that they were better able to increase their loans than their deposits. The state-owned banks encountered the opposite phenomenon. Private depositors apparently considered the state-owned banks (and perhaps foreign banks) safer than the private domestic banks, and therefore were willing to deposit funds at a somewhat lower interest rate with the state-owned banks than with the private banks. The state-owned banks also had a more extensive branch network. On the other hand, private bank lending procedures were quicker and less complicated



than those of the state-owned banks so that private borrowers were willing to borrow from them even at somewhat higher nominal interest rates than charged by the state-owned banks. All state-owned enterprises were required to use only the state-owned banks, so this provided the state-owned banks with a captive clientele and a large interest-inelastic deposit base. This imbalance between the deposit mobilising and lending capabilities of the two groups of banks created a very fertile environment for the development of the interbank money market.¹³

The interbank market grew very rapidly after July 1983 and then collapsed just as quickly after a change in policies in September 1984 (Section 4.3). The weighted average interbank interest rate was relatively volatile (for example it reached a monthly average of 46% in September 1984) but was probably a good indicator of the liquidity conditions in the money market throughout this period.

While the domestic interbank money market was growing in response to normal market forces, the monetary authorities became more concerned with developing an indirect instrument to influence the total supply of the reserve money of the banking system as the repatriation of foreign exchange holdings could lead to rapid growth of reserve money. Bank Indonesia introduced a new money market instrument in January 1984, called a *Sertifikat Bank Indonesia*, or SBI, which was a short-term liability of Bank Indonesia (30 and 90 day maturities).

¹³ Some of the larger private banks began to act as informal brokers intermediating between the state-owned banks and smaller private banks.

4.3 September 1984-September 1986: Exchange rate uncertainty and development of money market instruments

The combination of unrestricted capital movements and erratic adjustments of the exchange rate instrument made the domestic money market vulnerable to sharp contractions or expansions. In August 1984, the domestic interbank market became very unsettled mainly because of an acceleration during July and August in the rate of depreciation of the Rupiah quoted by Bank Indonesia. This led to speculation that there might be a further large devaluation. The response in the money markets caused a heavy outflow of foreign exchange reserves from the Bank Indonesia, and a sharp rise in the overnight interbank interest rate to a peak of 90% *p.a.* in September from an average of 22% in August.

The monetary authorities, in evaluating this crisis, concluded that activity in the interbank market was contributing to the speculation against the Rupiah, so they reduced ceilings on the amount of interbank borrowing that banks could undertake (from 15% to 7.5% of total deposit liabilities). Bank Indonesia also supplied emergency credits of up to six months to all banks that were short of liquidity. Most importantly, they reduced the rate of depreciation of the Rupiah (at this time the rate at which Bank Indonesia would trade was announced daily) which relieved the speculative concerns and caused a return flow of foreign exchange to Bank Indonesia. The volume of interbank lending dropped sharply and the interbank rate fell back quickly to below the level before the crisis.

Having discovered that a short-term insufficiency of reserve money could be as troublesome as an excess and with the SBI not developed sufficiently to meet this need, Bank Indonesia introduced a new money market instrument in early 1985 called the *Surat Berharga Pasar Uang* (SBPU) that could be used to supply reserves. The SBPU was essentially a short-term security issued by a business or bank which Bank Indonesia was prepared to purchase at a discount from the banks via Ficorinvest, a Bank Indonesia-owned discount house. The rate of discount, or cut-off rate, was set by Bank Indonesia through a quasi auction process and all banks had a ceiling on the volume eligible for rediscount. In effect Bank Indonesia provided a committed credit line to commercial banks equal to the rediscount ceiling.

Initially the SBPU was used to replace part of the six-month emergency credits that had been given to many banks in September 1984. But there was continuing demand for reserve funds, especially from the private banks, whose borrowing in the interbank market was limited to 7.5% of their total third party liabilities. On the other hand, the state-owned banks had excess reserve funds which they could not lend directly to the private banks because of the same limit. Instead they put their surplus reserves into Bank Indonesia's SBIs or into dollar deposits abroad. From June 1985 until June 1986 the level of outstanding SBIs rose from practically nothing to Rp 2,100 billion, while the level of interbank borrowing declined. The deposit banks increased their net foreign exchange holdings by about US\$600 million, or Rp 650 billion at the then prevailing exchange rate.

Bank Indonesia itself played the former role of the interbank market by mopping up excess reserves from the state-owned banks through sales to them of SBIs and then lending reserves to the private banks (particularly foreign exchange banks) by

discounting their SBPUs. The interest rates set on these instruments by Bank Indonesia were only occasionally adjusted until June 1987.

A third money market instrument utilised by Bank Indonesia during this period was the foreign exchange swap facility.¹⁴ Bank Indonesia set a fixed swap premium of 5.25% *p.a.*, which was less than the difference between foreign US dollar interest rates and the domestic Rupiah deposit rates, and commercial banks could 'reswap' their swap contracts with Bank Indonesia, up to a preset ceiling, for a fixed commission (1/4% from 1983 to 1986 and 1/8% from 1986). By subsidising the forward market in this manner Bank Indonesia aimed to encourage the repatriation of working balances held abroad and at least temporarily increase its own foreign asset holdings. The swap facility encouraged repatriation of foreign assets by providing foreign exchange cover for interest rate arbitrage operations.

Thus, during this period the central bank set the SBI, SBPU and swap rates and rationed the quantity of SBPUs and swaps that it would buy from the individual banks. Since both of these instruments were sources of reserve money for the banks, Bank Indonesia essentially rationed the supply of reserve money for the individual banks. It also limited the amount of interbank borrowing that could be done by the private banks, and it bought up any excess reserves from the state-owned banks through the open-ended sale of SBIs. Not surprisingly the volume of interbank borrowing diminished and movements in the interbank interest rate were erratic and poorly correlated with the rates of either domestic or foreign money market instruments.

The overall effect of these policies was that two of the new money market instruments (SBPUs and swaps) were used primarily as quantitative instruments of monetary policy, to control the supply of reserve money, and they were not allowed to develop as flexible means of liquidity adjustment for the financial institutions. The SBI, on the other hand, was a fixed interest rate instrument of liquidity adjustment primarily for the state-owned banks. Since the interest rates on all these instruments were effectively fixed by Bank Indonesia, they provided little information on overall liquidity conditions or expectations in the money markets.

Problems were most clearly manifested by the consistent net outflow of foreign exchange from Bank Indonesia from mid-1984 through August 1986 (see final column, Table 8) as the commercial banks continued to build up their foreign exchange holdings. The rate of dollar outflow varied from month to month depending upon rumours and speculation about devaluation. The exchange rate was held fairly steady through this same period, especially after May 1985, which contributed to the pressures for, and expectations of, a big devaluation eventually.

The monetary authorities duly implemented a devaluation of 31% on 12 September 1986. The timing of this came as a surprise to many money market participants, who thought it would occur nearer the end of the year. In the meantime they had

¹⁴ A swap transaction is a simultaneous purchase and sale of foreign currency for two different value dates. The transaction is usually between a commercial bank and a customer who wishes to borrow offshore and convert into domestic currency. The swap transaction covers exchange rate risk for the customer.

continued to hold Rupiah assets which were earning seven to ten percentage points higher rates than comparable US dollar instruments.

4.4 October 1986-October 1988: Speculative pressures and stabilising monetary measures

Following the devaluation of September 1986, there continued to be speculative surges against the Rupiah. In December 1986 the central bank lost foreign reserves of \$1.7 billion net; in May and June of 1987 there was an outflow of \$1.1 billion (for comparison, 1986 imports were \$10.7 billion).

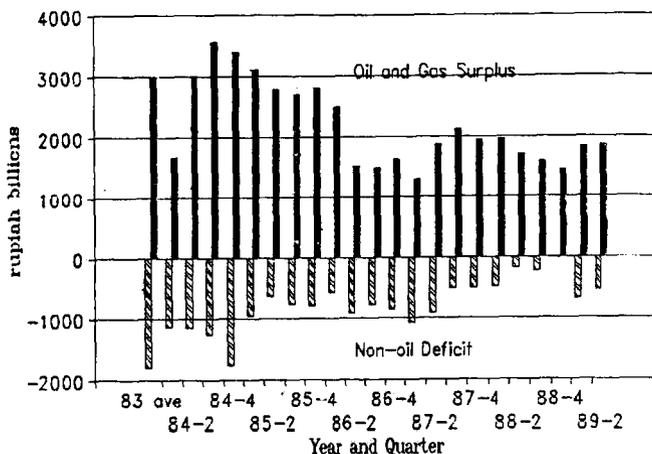
A major cause of these foreign exchange pressures was the rather modest recovery of oil prices since June 1986, which many market participants interpreted as likely to force a further large devaluation in order to maintain Rupiah budget revenues. But the government authorities concluded no further devaluation was required to stimulate the non-oil export sector and that there would be no net gain for the budget. Management of the exchange rate relative to the US dollar during this period gave the impression of uncertainty, although it may have been more stable relative to a basket of foreign currencies.¹⁵ This may have added to the speculation.

Following the devaluation in September 1986, Bank Indonesia removed the ceilings on foreign exchange reswaps for each bank, but also raised the swap premium from 5.25% to 8%. Despite the increase in price, reswaps outstanding surged, and there was evidence of an apparent substitution of swaps for foreign exchange asset holdings by the commercial banks. Interbank rates continued to rise throughout this period as many private and foreign banks had reached the rediscount ceiling for SBPUs and increasingly relied upon the interbank market for short-term funds. The Bank Indonesia reswap premium was raised again in May 1987 from 8% to 9%. This increase obviously was not sufficient to dampen the speculative fever, however, and reswaps continued to rise in May and June. The Central Bank also raised the offer rate on SBIs and raised the basic discount rate to 19%, but to no avail. The demand for SBIs practically disappeared.

Heavy loss of foreign exchange reserves due to expectations of a devaluation finally forced the Government to take direct and drastic action in late June 1987. There were several reasons why the Indonesian authorities did not carry out another devaluation. First, a devaluation was not considered necessary for balance of payments purposes. As Figure 2 shows, by the second quarter of 1987 the non-oil trade balance had started to improve and a firming of the oil price had raised net oil revenues to the highest level for over a year. Second, another devaluation was seen as too destabilising and as working against the objective of encouraging repatriation of private and banking foreign assets. Third, devaluation had not stemmed the tide of speculation in 1986.

¹⁵ Bank Indonesia claimed that it was adjusting the Rupiah to a basket of foreign currencies, but never specified what currencies were in the basket, nor how they might be weighted. Actual movements of the Rupiah exchange rate were usually measured relative to the US Dollar, and expectations were couched in terms of changes against the Dollar.

Figure 2: Indonesia: trade balance - oil & gas and other



Source: Bank Indonesia, Economic Indicators.

The state-owned banks were the principal speculators against the Rupiah, either by using their excess liquidity to buy foreign exchange directly or by lending to the private banks and their own customers who could then lengthen their foreign exchange positions. Therefore, the main attack by the monetary authorities was on the liquidity position of the banks, especially the state-owned banks. The contraction was accomplished by two specific measures. The first was an instruction to four large state-owned enterprises to transfer part of their time deposit balances at the state-owned banks into holdings of new SBIs issued by Bank Indonesia. The second was an immediate reduction in the ceilings on SBPU discounts at the central bank to zero, in effect forcing all the commercial banks to buy back their SBPUs from Bank Indonesia.

These two measures essentially wiped out, almost overnight, the equivalent of all the available legal reserves of the deposit money banks. The only way in which the banking system could meet its reserve requirements was by selling foreign exchange to Bank Indonesia, or by borrowing through the discount window. An increase in the discount rate for the use of the central bank discount facility from 20% to 30% was intended to discourage the second alternative and encourage sales of foreign exchange to the central bank.

The effects of the June-July restrictive measures were dramatic. There was a large return flow of foreign exchange to Bank Indonesia amounting to \$1.3 billion from July through November 1987, and a \$1.0 billion decline in outstanding swap contracts with

Bank Indonesia between April and December 1987. The improved domestic bank liquidity position was reflected by a drop in the interbank interest rate from an average of 23.5% in June to 11.8% in September, whilst SBI auction rates also fell during this period. All these changes reflected changed expectations as to the likelihood of a major devaluation in the near future.

However, the possibility for banks to use the SBPU rediscount with Bank Indonesia as a source of funds was eliminated in the short run as the rediscount ceilings had been used by commercial banks to borrow reserves from Bank Indonesia whilst simultaneously increasing foreign currency holdings. In the longer term the private commercial banks had lost a useful method of short-term reserve management and were more reliant upon state banks supplying the interbank market or external resources. The SBI also was tainted by the forced sale to the public enterprises, which may have set back the planned development of money markets. Bank Indonesia commenced a more discretionary period of money market intervention. The cut-off rate set at the SBI auction served as signal for the direction in which the Bank wished to see short-term interest rates move.

The focus of policy then shifted to an attempt to extend the time horizon of stable expectations, especially for the exchange rate, from a few days or weeks to a few months. The major instrument used for this purpose was the rate of depreciation of the Rupiah against the US dollar. Although the authorities theoretically were adjusting the exchange rate to a basket of currencies, they in effect seemed to be carrying out a gradual depreciation of the Rupiah against the US dollar throughout most of 1988, which contributed to improved expectations.

4.5 October 1988-December 1989: Activating domestic money markets

On October 27 1988, the Government announced a broad package of financial reforms (PAKTO) that was designed to free entry into many types of financial activity and give encouragement to the development of domestic financial markets (Appendix II). The major provisions that directly affected monetary policy included:

- (a) removal of specific limitations on interbank borrowing;
- (b) introduction of a flexible foreign exchange swap premium based on the difference between the LIBOR rate and the time deposit rates of banks authorised to deal in foreign exchange;
- (c) reduction in reserve requirements of banks (and NBFIs) to a uniform rate of 2% of all third-party liabilities; and
- (d) forced temporary sale at fixed interest rates (16 and 16.5% *p.a.*) of 3- and 6-month SBIs to all banks to absorb 80% of the supposedly freed-up reserves resulting from the reduced reserve requirement.

These policies had the effects of increasing the opportunities and facilities for using domestic money market instruments, and of reducing the relative attractiveness of operating in the foreign exchange markets for liquidity purposes.

The flexible swap arrangement was intended to bring the premium under market forces. If the rate was simply fixed by Bank Indonesia, a change in the swap premium was likely to be interpreted by commercial banks as a signal of a changed rate of depreciation and was likely to create instability in foreign exchange markets. For example, increases in the swap premium in 1986 and 1987 actually raised demand for swaps as a hedging option.

The forced sale of SBIs in November 1988 put a severe squeeze on the liquidity position of the commercial banks because the reduction in legally required reserves was much greater than the reduction in reserves that the banks considered they needed to meet their own conception of reasonable liquidity requirements.¹⁶ Some banks, faced with this severe liquidity squeeze, had to turn to Bank Indonesia for what turned out to be long-term accommodation. Others managed to adjust by selling foreign exchange holdings or by borrowing abroad and swapping foreign exchange with Bank Indonesia to acquire Rupiah.

This liquidity squeeze led to a one-time adjustment in the positions of many banks, and also to a sharp rise in the interbank interest rate. However, most banks managed to meet their legal reserve requirements at the end of the first or second 7-day reserve period in November by one means or another. After the dust settled they began to explore their reserve management practices and to work out new ways to meet the new reserve requirement rules.¹⁷

By late December 1988, a few banks began to sell some of their so-called 'PAKTO SBIs' either outright or under repurchase agreements, thus commencing the development of a secondary market. In the first part of February, 25% of the 90-day PAKTO SBIs matured and were redeemed by Bank Indonesia. This helped to ease further the liquidity position of the banks. In the meantime, the interbank market was becoming more active as a mechanism for redistributing available reserves among the banks.

The prospect of the remaining 75% of PAKTO SBIs maturing in the first half of May 1989, thereby supplying new reserve money of Rp 1,200 billion, which was about equal to the total reserves of the banking system (both required and excess), led to some concern about the money markets becoming overly liquid and precipitating a significant loss of foreign exchange. To prevent this, Bank Indonesia gave further encouragement to the development of the secondary and primary markets for SBIs and also took several measures to discourage the holding of foreign exchange for liquidity management purposes.

¹⁶ The level of actual reserves of the banks declined from Rp 3,129 billion to Rp 1,957 billion during November 1988. But the banks were required to buy Rp 1,904 billion of SBIs, or Rp 732 billion more than the reduction in their actual reserves.

¹⁷ The 2% limit was not a floor. Banks have been unable to reduce their cash and working balances with Bank Indonesia much lower than 5% because they cannot have a negative (overdraft) position with Bank Indonesia and most banks are very reluctant to make use of the central bank's discount window. However an incentive has been created to make banks' cash management operations more efficient.

These measures, which took effect from May 1, 1989, included:

- (a) setting net open foreign exchange position limits for all foreign exchange banks at 25% of their total capital;
- (b) removal of foreign borrowing limits on domestic banks to permit them to acquire more longer-term foreign financing;
- (c) restrictions on the definition of capital for branches of foreign banks operating within Indonesia;
- (d) restrictions on the use of foreign exchange swaps with Bank Indonesia by branches of foreign banks.¹⁸

Steady depreciation of the exchange rate continued through the remainder of 1989 at about 4-5% *p.a.*. Bank Indonesia's foreign exchange reserves held steady while outstanding reswaps declined. Non-oil exports grew well and oil prices held steady. The interbank rate and SBI rates declined.

Thus, by the end of 1989 the cumulative effects of the various monetary and broader financial policies were basically favourable. Real economic growth was good (7.2%), inflation moderate (7.0%), the balance of payments was strong, bank assets and liabilities were growing rapidly, and the capital market was booming. The instruments of monetary policy were still in need of improvement to make them more indicative of, and responsive to, changing market conditions, but the array of instruments and the principles guiding their use seemed appropriate to the country's condition.

¹⁸ The purpose of these regulations was to encourage foreign bank branches to bring in more foreign capital. Note that no new bank branches were authorised entry by PAKTO, although joint ventures could be entered into. See Appendix II.

5. DEMAND FOR MONEY

5.1 Overview

The main problem in estimating the demand for money in Indonesia has been the choice of variables to evaluate the impact of the open economy. The existence of domestic foreign exchange deposits and free conversion of Rupiah into foreign currencies allows the level of foreign interest rates and expectations of exchange rate depreciation to have a substantial impact upon the demand for Rupiah-denominated bank deposits. Modelling exchange rate expectations during a period which had three major devaluations and several periods of speculative outflows has proved difficult.

For the Indonesian authorities the operational significance of the open economy is to manage the exchange rate and domestic interest rates (as far as possible) so that destabilising shifts in money demand do not occur. The previous discussion of policy implementation has highlighted the difficulty of controlling reserve money, interest rates and money demand at times of intense speculative pressure.

There is a substantial body of work which analyses the demand for monetary assets in Indonesia.¹⁹ In general the behaviour of money demand conforms to theoretical reasoning. However the work carried out has not focused upon the stability of the money demand function, chiefly because the sample size has not been sufficiently large. The general approach has been to disaggregate the components of money and to estimate several separate functions. This approach has shown that portfolio selection is strongly influenced by the relative rates of return on real and financial assets. Some instability in the demand function has been observed during periods of devaluation or of money market crises but the general view is that this is a result of poor or imprecise specification rather than intrinsic instability.

The speed of adjustment of money demand to changes in economic variables appears to have accelerated in the 1980s relative to estimates largely based on the 1970s (for estimations which use an adaptive expectations variable or a lagged dependent variable). For example the coefficient on the lagged dependent variable in narrow money estimations fell from 0.749 during 1976.1-1984.4 (Boediono, 1985) to 0.363 during 1984.2-1987.4 (Ahmed and Kapur, 1990). This suggests that the increasing sophistication of money markets has improved the speed of financial transactions and that the degree of international financial integration has increased. The slow speed of adjustment (around 0.2 to 0.25) for major monetary aggregates in the pre-1983 period would tend to lead to a more pessimistic view of the potential for official intervention in interest rate setting than in the post-1983 phase. Even post-1983, as discussed in Section 4, with faster money demand responses the role of speculative money market pressures in raising interbank and deposit rates appeared to override the authorities' attempts to control interest rates in the short term at specific times, as well as in the medium term.

Real narrow and broad money aggregates are predominantly influenced by a scalar variable (consumption or income) and reduced by domestic inflation. The income

¹⁹ Ahmed and Kapur (1990), Boediono (1985), Odano and Soekarno (1988).

elasticity of demand has been high in all estimations undertaken and increases for less liquid forms of money, indicating the financial deepening that has occurred in Indonesia. Boediono (1985) finds a long-run elasticity of 1.09 for currency, 1.48 for demand deposits, 1.31 for narrow money and 2.03 for quasi money for 1975-84. Higher domestic interest rates encourage real time and savings deposits, and in some cases create portfolio adjustments out of demand deposits.

The impact of the open economy upon demand for money has been tackled with a number of different methods. Boediono (1985) considers the role of the foreign-domestic interest rate differential (Rf-Rd), adjusted for exchange rate expectations, upon quasi money and by employing a measure of gross domestic income which incorporates terms of trade effects. Exchange rate expectations are proxied by (i) changes in the real effective rate in the current quarter, (ii) a weighted average of current and past changes in the actual market exchange rate with geometrically declining lags, (iii) changes in the actual exchange rate in the current quarter and (iv) a hypothesis that there are no exchange rate expectations. Utilising quarterly data from 1975.1 to 1984.4 (straight line interpolation for gross domestic income) the results showed that for quasi money the interest rate differential (with random walk exchange rate expectations) had a significant negative effect upon the level of money demand. This result suggests that the fixed exchange rate regime in the earlier half of the sample period had a strong influence on restraining expectations of devaluation. The gross domestic income variable also provided more significant parameter estimates than a GDP variable.

An alternative approach incorporates the open economy with a devaluation expectations variable of trend decline that was found to have a significant effect upon demand for foreign currency deposits (at 95% confidence level) for 1976.3 to 1986.4 (Odano and Soekarno, 1988). For quasi money, in 1984.2 to 1987.4 the influence of the open economy has been incorporated with the foreign interest rate plus the swap premium (lagged three periods) which has a significant negative effect upon money demand. Other external influences are the price of oil (positive) and the inflation rate differential (negative) of Indonesia with foreign competitors and traders, but these are not significant at the 95% confidence level (Ahmed and Kapur, 1990).²⁰

5.2 Assessing money demand in the post-1983 period

Several problems remain with money demand estimation for Indonesia. First, the incorporation of open economy variables remains partial at best. Second, estimations

²⁰ Ahmed and Kapur - Quasi Money Demand 1984.2 1987.4 (quarterly data)

$$QM = -28.968 + 0.013 TD + 0.034 TD(-2) - 0.029 RF(-3) - 0.016 INF(-2) + 5.222 GDPQ + 0.002 OIL$$

(-10.095)
(1.770)
(4.894)
(-2.827)
(-1.141)
(9.453)
(1.477)

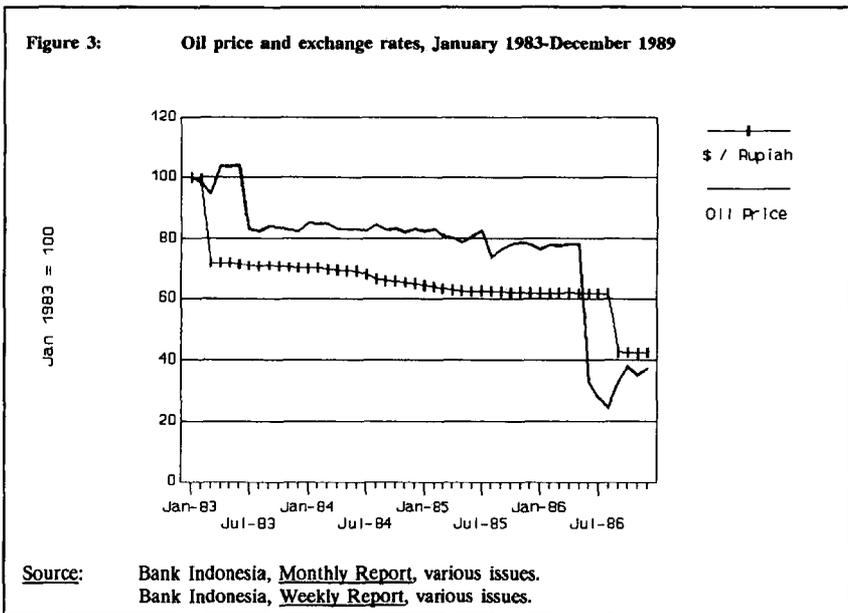
$$R^2 = .982 \quad DW = 2.107$$

Where:

- QM = log Rupiah quasi money
- TD = 3 month state-owned bank time deposits
- RF = 3 month LIBOR + Bank Indonesia 3 Month Swap Rate
- GDPQ = Quarterly GDP (linear interpolation)
- OIL = US dollar price of oil

upon quarterly data cannot accurately capture the dynamics of changes in monetary demand.

Exchange rate expectations are extremely important in determining demand for Rupiah assets but there has been no satisfactory method to estimate them mainly because they have been extremely volatile. The oil price was at one time thought to be a good predictor of exchange rate movements, for example, the September 1986 devaluation from Rp/US\$ 1134 to Rp/Us\$ 1644 closely followed a decline in oil prices (see Figure 3). However, even in this case, financial markets were caught by surprise and speculation for a further devaluation occurred later in 1986 and in 1987. In 1983, the devaluation actually preceded the oil price fall, whilst in years subsequent to 1986 the exchange rate did not respond to oil prices changes.



Because the swap premium was a managed tool of the Indonesian authorities it did not give a clear indication of exchange rate expectations in Indonesia (although demand for swaps was likely to rise with expectations of devaluation with a reasonably priced premium). The premium was kept artificially low and the market for swaps remained small and imperfect. The best indicator of exchange rate expectations would appear to be the difference between foreign and domestic interbank rates. As discussed in Section 4, expectations of devaluation have led Rupiah holders to convert into dollars and leave banks short of Rupiah resources. Banks' short-term response has been to increase use of interbank market funds and bid up the market rate. Ideally, the

interest rate differential would be used as an indicator but interbank rates are only available as a composite measure of differing maturities.

Thus, as an indicator of open economy effects we use a series of measures:

- (a) the domestic interbank rate (a weighted average of maturities from 1 to 90 days) as an indicator of actual speculative pressure;
- (b) the foreign interbank rate (LIBOR 3 months US\$) and the swap premium (3 months) as the risk adjusted return on foreign assets;
- (c) previous point rates of depreciation (1, 3, 6 and 12 months previously) as an indicator of the risk premium associated with holding Rupiah assets.

Monthly data are used to incorporate more complex dynamics into short run money demand. This is available for all variables apart from a scalar variable. Two scalar variables were constructed. First, previous estimations (Boediono, 1985) showed that currency demand had very close to unit elasticity with GDP upon quarterly data for 1976-1984. Deviations of actual data from a straight line interpolation of currency demand were utilised to interpolate a monthly GDP series.²¹ Second, a simple time trend was used in view of the reasonably stable annual growth path of scalar variables. Two functional forms were utilised: first an adaptive expectations model with a lagged dependent variable and, second, an autoregressive error process as a simplification of a dynamic specification. The demand for narrow money was specified as a function of the trend level of transactions, the opportunity cost of holding money rather than goods (*i.e.*, expected inflation) and the rate of return on alternative financial assets as proxied by the time deposit rate. Open economy variables were not considered to be important in determining this essentially transactions-determined demand. For quasi money open economy variables were added in addition to the variables considered in the narrow money estimations.

5.3 Estimations

The demand for narrow money and quasi money was estimated for the period 1983.6 - 1989.9. Interpolated data for the scalar variable are consistently outperformed by a trend variable in all estimations and are therefore not reported in estimations. The effect of interpolated data was to create substantial serial correlation. Correction for serial correlation by the Cochrane Orcutt method generally gave poor results.

Functional forms:

$$1.1 \quad M1 = f_1(Y, INF, Rd, \text{Dummies})$$

$$1.2 \quad QM = f_2(Y, INF, Rd, Rib, Rf, SWAP, EX, \text{Dummies})$$

²¹ See Maddala (1977, pp.205-7) for interpolation methodology and tests to minimise interpolation errors.

Where:

- M1 = Log Rupiah currency plus demand deposits deflated by consumer price index
 QM = Log Rupiah time plus savings deposits deflated by consumer price index
 Y = Log real GDP (interpolated) or time trend
 INF = Consumer price inflation (over previous 1, 3, 6 and 12 months)
 Rd = Domestic interest rates (state-owned bank time deposits, 1 and 3 months)
 Rib = Weighted interbank rate
 Rf = Foreign interest rate (LIBOR, 1 and 3 months)
 SWAP = Bank Indonesia quoted swap premium (1 and 3 months)
 Dummies = Dummy variables to incorporate seasonality and the effects of policy regime changes in October 1988 (PAKTO) and May 1989 (limits imposed upon open foreign exchange position of banks and NBFIs).
 DJAN....DNOV monthly seasonal variation dummies, DJAN=January *etc.*
 EX = US\$/rp depreciation (1,3,6 and 12 months).

(a) Narrow money

We report one result here for narrow money utilising an adaptive expectations model:

□ **Regression 1**

Independent Variable - M1 (Real Rupiah currency plus demand deposits)
 Method - OLS

<u>Variable</u>	<u>Coefficient</u>	<u>t stat</u>
Constant	1.683	3.22
M1	-10.645	5.80
Trend	0.0017	3.40
INF(3)	0.149	0.71
Rd(3 month)	-0.0068	-2.31
DJAN	-0.055	-4.84
DFEB	-0.015	-1.36
DAPR	-0.025	-2.26
DMAY	-0.016	-1.47
DJUL	-0.026	-2.38
DOCT	-0.020	-1.83
R2	.953	F (10,65) 133.1
RBAR	.946	SEE 0.0246
DW	2.176	MLL 179.7
n	76	

Serial Correlation rejected 1-12 lags.

The narrow money regressions generally show the expected sign of coefficients, significant at a 95% confidence level. Expected inflation, proxied by previous inflation of 1, 3, 6 or 12 months, had no significant effect upon real narrow money demand, demonstrating that the generally low and steady rates of inflation in the post-1983 period are likely to have created minimal disturbances

to real money demand. The rate of interest on state-owned bank time deposits had a small but significant negative effect upon money demand which indicates that lifting restrictions upon state-owned bank interest rates in 1983 induced modest portfolio reallocation into longer maturity deposits from narrow money and promoted financial deepening. Because a time trend plus seasonal dummy variables formulation was employed, the income elasticity of demand varies according to the rate of growth of income, being lower in years of high income growth. Finally dummy variables for the PAKTO reforms in October 1988 and for reforms in May 1989 did not have a significant effect upon narrow money demand. This demand had a strong element of seasonality, however, in part because the trend variable exhibited no seasonality, with peak demand in December of each year.

(b) Quasi money

□ **Regression 2**

Independent Variable - QM (Real Rupiah time and savings deposits)
 Method - OLS

<i>Variable</i>	<i>Coefficient</i>	<i>t stat</i>
Constant	.461	2.85
QM -1	.886	22.80
Trend	.0019	2.37
Rd(3 month)	.00619	2.78
Rd(3) -3	-.0033	-1.70
INTBANK	-.0022	-4.87
MAY89_DUM	.0018	2.37
R2	.998	F (10,65) 7033.0
RBAR	.948	SEE 0.0181
DW	1.762	MLL 179.7
n	76	

Serial Correlation rejected 1-12 lags.

Regression 2 highlights some of the salient features of demand for quasi money in Indonesia, but the strong significance of the lagged dependent variable indicates the need to respecify. The own rate of return on deposits (state-owned banks, 3 month maturity) has a positive effect on quasi money demand but this appears to be offset somewhat with a three month lag. The interbank weighted interest rate (INTBANK) exerts a negative effect on demand, as a proxy for speculative pressure. Finally, a dummy variable for the last months of the series demonstrates that reforms in May 1989 had a significant positive effect upon demand for quasi money. Placing zero restrictions upon the coefficients of all seasonal dummy variables could not be rejected with the F-test, so we conclude that seasonality is not an important influence upon demand for time and savings deposits.

A second formulation (equation 3) utilised the existence of serial correlation in residuals as a convenient simplification of a dynamic process.

□ **Regression 3**

Independent Variable - QM (Real Rupiah time and savings deposits)
Method - Cochrane Orcutt Method AR (4)

<u>Variable</u>	<u>Coefficient</u>	<u>t stat</u>
Constant	4.065	85.09
Trend	.0019	51.16
Rd(3 month)	.00414	1.99
Rf+swap(3 mon)	-.0082	-2.68
INTBANK	-.0015	-4.73
Inf(12)	-.0062	-4.46
XR (6)	.0865	3.05
U(t-1)Rho	1.252	10.46
U(t-2)Rho	-.846	-4.68
U(t-3)Rho	.662	3.64
U(t-4)Rho	-.357	-3.29
R2	.998	F (10,61) 3892.1
RBAR	.998	SEE 0.0168
DW	1.886	MLL 198.1
N	76	

Although equation 3 has a complicated lag structure and linear restrictions on the coefficient estimates, the effect of the independent variables upon money demand is very much as expected. The trend variable captures the scalar effects very strongly, domestic interest rates have a positive effect on money demand, whilst inflation expectations (proxied by past annual inflation) reduce money demand. The open economy variables have a substantial effect upon quasi money demand. Similar to Ahmed and Kapur (1990), we find an increase in swap-adjusted foreign interest rates reduces domestic money demand, with no significant difference upon the coefficients of the swap rate and the foreign interbank rate if estimated separately. The domestic interbank rate also enters as an indicator of pressures upon money demand with a negative sign, indicating that a high rate is largely a result of open economy pressures. Finally, the exchange risk premium, or risks of depreciation not covered by the forward discount rate, is proxied by actual depreciation over the previous six months. The argument for this is that demand for money is influenced by previous rates of depreciation.

5.4 Prediction

The outcome of sample prediction performance turned out to be surprisingly good. Estimating the model upon the data for 1983.6-1988.12 permitted prediction of 9 months' money demand. Apart from the final observation, the model over-predicted money demand during 1989.1-1989.9, with a mean absolute prediction error of .38% (of the log value). A comparison of predicted and real quasi money demand reveal an actual increase of 25.21% against a predicted increase of 24.73%. The accuracy of the model for prediction will rest heavily upon the view taken of future movements in domestic and foreign interest rates.

6. CONCLUSIONS: IMPLEMENTING MONETARY POLICY - IS INDONESIA DIFFERENT?

There are two distinctive features of the Indonesian financial system that have a significant bearing on the implementation of monetary policy. One is the strict limitations on government budget deficits which largely preclude domestic deficit financing and thereby avoid expansionary monetary pressures. The other is the open foreign capital account which permits sudden movements into and out of foreign exchange. These create problems for monetary policy but, at the same time, give clear signals of monetary imbalance and the need for corrective action. The ability to maintain the open capital account for almost two decades has been dependent upon, and has supported, the conservative fiscal policy. These fundamental fiscal and foreign exchange policies have, in turn, set the conditions for implementation of monetary policy.

6.1 Fiscal policy

Government deficits have been low, on average 1.3 or 1.4% of GDP, and almost entirely foreign financed. There is essentially no provision for domestic financing of the budget deficit and no issuance of treasury bills or bonds. Indonesian fiscal accounts must technically balance, *i.e.* the capital deficit must equal the current surplus. Capital expenditures are committed but may be unspent and capital revenues include foreign financing and the surplus from the current budget.

The practice of placing all revenues and accumulating budgeted expenditure commitments as deposits in Bank Indonesia has in many years had a significantly depressive effect upon money supply.²² In 1984, for example, broad money increased by Rp 3,300 billion (22%), but only after allowing for a reduction in net credit to government (*i.e.* increased deposits) of Rp 3,400 billion. Thus government operations can have a considerable stabilising impact on monetary policy. Movements of state enterprise deposits have also been used as a policy instrument. By shifting deposits from commercial banks into holdings of Bank Indonesia securities, commercial banks lose Rupiah reserves and must eventually repatriate offshore foreign assets, a technique used to stabilise foreign exchange outflow and support the exchange rate in 1987 (Section 4.4).

Whilst many countries have balanced budget rules, Indonesia remains one of the few where the rhetoric is close to reality. The actual level of tax and non-tax receipts does appear to set a binding ceiling upon the actual level of expenditure rather than the budgeted expenditure level. Thus, during 1986 fiscal year, a fall in oil prices dramatically cut tax revenue from a predicted Rp 24,000 billion to Rp 16,000 billion. Government development (capital) expenditure in the same year fell from Rp 15,000 billion to Rp 8,000 billion through reprogramming of expenditure and through cutbacks. This fiscal austerity occurred despite nearly Rp 10,000 billion in government deposits at Bank Indonesia. From the monetary viewpoint, the conservatism of expenditure

²² Some government officials describe this sterilisation as 'hiding the oil money'.

policy has been an important factor in maintaining or improving monetary control, although there are social costs associated with such a policy, such as the delayed provision of urgently required social and physical infrastructure.

Two factors are central to explaining fiscal conservatism: the experience of near economic collapse in the mid-1960s; and the strength of a technocratic group of economic advisors within the government (see Woo and Nasution, 1990:chapter 3). It is likely that neither factor alone would represent a sufficient explanation.

In 1965, the year before Soeharto came to power, inflation was 595%, government expenditure was 163% larger than revenue and Indonesia defaulted on its foreign debts. The root of the problem was simply monetisation of government deficits and government direction of credit to state enterprises and supporters in the private sector. In 1965, money growth (M1) was 283% and a sharp decline in real money supply suggested that the use of money as a store of value had almost disappeared. The centrepiece of the reform programme instituted in 1966 was a firm commitment to avoid monetising government deficits. Foreign financed Government deficits were also limited to the supply of concessional loans as private capital adopted a 'wait and see' attitude. As Woo and Nasution (1990:p.59) aptly comment: 'Soeharto obviously understood his first lesson in macroeconomic management because his balanced budget principle has never been compromised during his administration. To Soeharto, a prudent fiscal policy is understood to mean a 'balanced' budget'.

The second element of conservatism is the strong influence of a close knit group of neo-classical economic policy-makers in the Ministry of Finance, Planning (BAPPENAS) and Bank Indonesia.²³ This group rose to prominence because of their competence in the design and implementation of the 1966 adjustment programme and because of strong support for their policies from sources of external funding such as the IMF, World Bank and the intergovernmental donor group, IGGI. Their influence was sustained, however, even when concessional funding was less crucial, as proven competence - for example in resolution of the Pertamina crisis in 1975 (see below) - led to continued support from President Soeharto.

In contrast to other developing economies, state-owned enterprises in Indonesia have not generally been used as a back door to uncontrolled credit expansion, despite comprising a large section of the formal economy. Ironically, a key factor in this control was a crisis in Pertamina, the state-owned oil conglomerate²⁴, in 1975. Pertamina had expanded its non-oil investments rapidly by short and medium term foreign borrowing (total outstanding perhaps \$10 billion at end-1974). Concern from the IMF and World Bank at Pertamina's financial position, with interest rates rising, led to the imposition of restrictions on short-term borrowing. Pertamina defaulted on loan repayments in February 1975 and Bank Indonesia assumed responsibility for managing Pertamina's external debt portfolio. As a result, both foreign and domestic credits to other borrowers as well as government development expenditures were

²³ This group might be contrasted to a more nationalist protectionist approach based in the ministries of Industry, Technology and Communications.

²⁴ At the time Pertamina was the largest non-Japanese company in Asia (Woo and Nasution, 1990:p.120).

curtailed in following years. The political effect of the Pertamina crisis was to strengthen further the hand of the technocrats, who were given control of state-owned enterprise borrowing. Despite numerous examples of bail-outs and politically inspired lending to state-owned enterprises, the relatively early imposition of central authority upon state enterprise borrowing limited the scale of foreign borrowing and also the share of total domestic credit to this sector. Effective legislative control of the government budget, combined with supervision of state enterprise borrowing, have substantially reduced the scope for fiscal policy actions to destabilise monetary aggregates and control.

6.2 Open capital account and financial flows

The open foreign capital account has created problems of control for monetary policy. The periodic emergence of speculative pressures has been the hallmark of the post-1983 reform period as a result of exchange rate uncertainty. Monetary policy instruments have had to be developed to offset the expansionary effect of inflows and to impose reserve money contractions to stem outflows.

With the introduction of the Bank Indonesia Certificate (SBI) in 1984, the Bank moved to a position where it could, at least theoretically, intervene in the foreign exchange market without affecting the Rupiah money supply (*i.e.* a sterilised intervention, buying(selling) foreign exchange and selling(buying) SBIs). In practice this type of intervention was limited by the size of Bank Indonesia's reserves and, more importantly from 1984, by the size of the SBI market. Although the market for SBIs has since developed, it remains small and there still is limited secondary trading, so the linkages between foreign flows and domestic money supply remain close.

Rather than intervening in the foreign exchange market, Bank Indonesia sets rates at which it will buy and sell foreign exchange in the spot or swap market, and then stands to buy or sell whatever amounts are offered to, and demanded from, it in these two markets. Its principal short-run instruments are adjustments in the posted exchange rates and in reserve money, to affect liquidity and short-term interest rates.

Exchange rate adjustments, as we have noted, were quite erratic before 1988, often moving in perverse ways to try to influence, or 'fool', the market. Since early 1988, Bank Indonesia has followed a policy of fairly steady depreciation of the Rupiah against the US Dollar at 4-5% *p.a.*, and has looked to adjustments in reserve money and short-term interest rates as the principal instruments of policy.

In late 1988, a massive reduction in bank reserves through required purchases of SBIs by all banks raised interest rates and reversed a foreign exchange outflow arising mainly from uncertainty over the expected package of financial regulatory changes. Throughout 1989, following the regulatory policy changes, monetary policy was more benign, permitting a steady expansion in reserve money and a decline in interest rates.

Nevertheless, given the open foreign exchange system and the policy of steady depreciation of the exchange rate, domestic short-term interest rates must be kept within a narrow range of foreign interest rates plus the expected rate of depreciation. If domestic interest rates are pushed too low foreign exchange will flow out, and if

they are high enough foreign exchange will flow in. This provides a fairly clear and simple rule for management of monetary policy so long as there no major shocks from the world economy or departures from the government's balanced budget policy.

APPENDIX I

38

Interest rate and self-financing requirement of Bank Indonesia's refinancing facility
(percentage)

March 1989

Item	Interest charged by handling banks to customers p.a.	Minimum ratio of customer's self- financing requirement in total cost of project	Ratio and interest rate of BI's refinancing facility	
			Ratio	Interest p.a.
I. Working capital credits				
1. Permanent Working Capital Credit (KMKP)	12	--	55	5.2
2. Credits for production, imports, and distribution of fertiliser, insecticide, agriculture, and plantation	12	25	75	3
3. Credits to Private National Plantation (PSN)	12	30	75	3
4. Credits to co-operatives (for members and for the purchase of commodities)	12	--	90	3
5. Export credits	freely determined by respective handling bank ^(a)	15	85	3
6. Credits to national contractors	9	50-70	70	3
7. Credits to villages (Kupedes)	18	--	100	12 ^(b)
8. Working Capital Credits (KMK) through Rp 75 million	15	10	70	3
9. KMK Keppres No.29/1984	15	10	70	3
10. Credits to farmers through KUDs for the intensification of paddy/secondary crops	12	--	100	3

II. Investment Credits

1. Small Investment Credits (KIK)	12	--	55	5.2
2. Plantation credits:				
(a) Nucleus Smallholder Estate (PIR)	12	--	80	3
(b) PIR-Trans ^(c)	16	35	55	6.5
(c) Rejuvenation, Rehabilitation, and Expansion of Export Plants (PRPTE)	12	--	80	3
(d) Private National Plantation (PSN)	12	10-30	85	3
3. New rice fields ^(d)	12	--	100	3
4. Investment Credits (KI) through Rp 75 million	15	10	70	3
5. Credits to co-operatives (for members and for the purchase of essential commodities)	12	--	90	3
6. Credits to villages (Kupedes)	12	--	100	3

III. Others

1. House Ownership Credits (KPR)	9-15	10-40	75-90	3
2. Credits for Indonesian Students (KMI)	6	--	100	3
3. Credits for Student Dormitories	5	--	80	3

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- Notes:**
- (a) An interest rate of 9% *p.a.* would be applied on credits of which exports have been realised.
 - (b) 95% for state development banks.
 - (c) Excluding reserve for risk.
 - (d) Prior to extending credit to farmer, this credit scheme provided by Bank Indonesia as direct credit to the Ministry of Agriculture.

Source: Bank Indonesia, Annual Report, 1988/89.

APPENDIX II

DEREGULATION PACKAGES: OCTOBER 1988-MARCH 1989

PAKTO 27 (October, 1988)
 PAKDES II (December, 1988)
 PAKMAR (March 1989)
 PAKJAN (January 1990)

(Source: Cole and Slade, 1990b)

PAKTO 27 (October 1988)

A. Banks1. New entry permitted□ **Capital Requirements:**

- Wholly owned by Indonesian nationals:
 general banks: Rp 10 billion;
 rural banks: Rp 50 million.
- Up to 85% owned by foreign banks (joint ventures):
 general banks: Rp 50 billion.
- Branches of Foreign Banks in Indonesia:
 No new entry.
- NBFIs:
 No new entry.

□ **Other requirements**

- New joint ventures:
 Joint ownership by domestic banks and foreign banks
 (maximum of 85% of shares by foreign partner).
 Domestic bank must be classified 'sound' 20 of last
 24 months.
 Location restricted to 7 major cities.
 Within 12 months, outstanding export credits must
 equal 50% of total credits outstanding.
 Foreign bank partner must:
 - have representative office in Indonesia;
 - be reputable in country of origin;
 - be from country with reciprocity
 agreement with Indonesia.

2. New branches

- **Banks wholly owned by Indonesian nationals:**
Must have 20-months 'sound' classification of last 24 months.
Can open branches anywhere in Indonesia.
- **NBFIs:**
Must have 20-months 'sound' classification of last 24 months.
Can open one branch only in each of 7 major cities.
- **Existing foreign bank branches in Indonesia:**
Must be classified as sound.
Can open one sub-branch only in each of 7 major cities.
Within 12 months, outstanding export credits must equal 50% of total credits outstanding.
- **Rural banks:**
No restriction on branch office in same district as head office.
Must be located outside Jakarta, provincial capitals and municipalities; otherwise must move or become a General Bank (capital at Rp 10 billion).

3. Foreign exchange banks

- Branches of existing Foreign Exchange Banks automatically have right to deal in foreign exchange.
- Domestic non-foreign exchange banks may deal in foreign exchange if:
classified 'sound' 20 of last 24 months;
total assets greater than Rp 100 billion.

4. Certificate of deposit

- All banks, except rural banks, and NBFIs can issue certificates of deposit.
(RPI million and 30-day minimum).

B. Money changers

Licences issued for unlimited period; no specific restrictions on entry.

C. **Other measures**

1. State enterprises may put 50% of deposits with private national banks, development banks and NBFIS, up to 20% in one single bank.
2. Maximum legal lending limits were imposed on banks and NBFIS (as a % of lender's capital);
20% to a single borrower;
50% to a group of borrowers.
Various restrictions on borrowing by Board of Commissioners, shareholders, other affiliates, and staff.
3. Reserve requirements on banks lowered from a nominal 15% to 2% of liabilities to third parties. Lagged reserve accounting adopted. 3-month and 6-month PAKTO SBIs issued.
4. Maximum limit on interbank borrowing eliminated.
5. SBI maturities extended from only 7 days up to 6 months. Auction process strengthened.
6. Final withholding tax of 15% imposed on the interest of time deposits. Exemption allowed for certain 'savings' schemes. Anonymity preserved.
7. Banks and NBFIS can issue new shares on capital market.
8. Swap premium of BI made to reflect market conditions. Swap maturity lengthened.
9. Two day settlement for foreign exchange transactions by BI.

PAKDES II (December 1988)

1. Allows for establishment of private securities exchanges. Securities can be traded on more than one securities exchange.
2. Priority of Danereksa to purchase 50% of new issues is eliminated. Simple 'priority' is retained.
3. Permits licensing of wholly-owned Indonesian firms and joint ventures in the financial service activities shown in (4) with up to 85% foreign capital participation. Existing firms must adjust within 2 years.
4. Licensing of single and multi-activity firms in:
 - (a) leasing companies;

- (b) venture capital;
 - (c) securities trading;
 - (d) factoring;
 - (e) consumer finance;
 - (f) credit card.
5. Banks permitted to set up subsidiaries for 4 (a) and (b), and to engage in (d) through (f) without separate licence. Must obtain licence for (c).
6. Capital requirements for single activity:
- Wholly-owned by Indonesians:
factoring, securities trading, credit card and consumer finance: Rp 2 billion;
leasing, venture capital: Rp 3 billion.
 - Joint ventures:
factoring, securities trading, credit card and consumer finance: Rp 8 billion;
leasing, venture capital: Rp 10 billion.
7. Capital requirements for multi-activity:
- Wholly owned by Indonesians: Rp 5 billion
 - Joint Ventures: Rp 15 billion.
8. Regulations for insurance:
- (a) Joint Ventures allowed; up to 80% foreign share.
 - (b) Regulations set forth for solvency, admitted assets, retention ratios.
 - (c) Supervision strengthened.

PAKMAR (March 1989)

1. Clarifies and interprets PAKTO 27 concerning:
 - (a) Licensing mergers of banks.
 - (b) Definition of 'Capital' and 'Groups' used to calculate lending limits. 'Exempted credits' defined.
 - (c) Definition of 'Export Credits' used in requirements for foreign and joint venture bank operations.
 - (d) Shares of foreign banks in joint ventures.
2. Eliminates ceiling on offshore loans by banks and NBFIs.

3. Banks and NBFIs are restricted to maximum net open position equal to 25% of capital.
4. Announcement of schedule for removal of subsidy on interest rates on export credits within the year.
5. Exempts 'existing' rural banks from PAKTO provisions.
6. Eliminates existing requirement that medium and long-term bank loans must be approved by Bank Indonesia.
7. Allows BAPINDO and NBFIs to hold all types of equity.
8. Allows general banks to hold equity in financial activities with certain limits; can hold equity in other firms only with approval of the Minister of Finance.
9. Reaffirms underwriting authority to NBFIs and BAPINDO. Prohibits general banks from underwriting.

PAKJAN 1990

1. Abolition of Bank Indonesia subsidised refinancing facilities, which gave credit at (below market) interest rates from 3% to 14.5% to banks which then lent to 'priority' sectors at below market interest rates. Insurance was also provided by ASKRINDO, a government owned agency, for much of this credit at low cost, partially with BI support.
2. PAKJAN 1990 abolished these facilities except for the following: to BULOG for certain food stocks, investment credit for development banks, NBFIs and Estates, working credits for farmers, and certain credits for cooperatives. However, interest rates on these were increased at least to near-market levels and the insurance scheme was made voluntary and at market rates.
3. National Banks were required within one year to allocate a minimum of 20% of loan portfolio to small business, defined as having assets of less than Rp 600 million, excluding land, and each loan cannot exceed Rp 200 million. Failure to do this allocation would affect 'soundness of the bank'.

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