



**Consultative Group to Assist the Poorest (CGAP)
Working Group on Savings Mobilization**

**BANK RAKYAT INDONESIA (BRI);
INDONESIA (CASE STUDY)**

Klaus Maurer

Eschborn, 1999



CONTENTS

ABBREVIATIONS	v
LIST OF TABLES	vii
1 CONTEXT	1
1.1 Macroeconomic context	1
1.1.1 Macroeconomic stability and sustained growth (1984-1996)	1
1.1.2 The financial and economic crisis (since 1997)	1
1.2 Context of the financial sector	1
1.2.1 Role of the central bank	2
1.2.2 General development and characteristics of the financial sector	2
1.2.3 Outreach and characteristics of state interventions	3
1.2.4 The impact of the crisis on the financial sector	3
1.3 Social and socio-cultural context	4
1.4 Classification of the macroeconomic, financial and socio-cultural context	5
2 INSTITUTIONAL ANALYSIS	6
2.1 General characteristics of the BRI Unit Desa System	6
2.1.1 Evolution of the BRI Unit Desa System	6
2.1.2 Current performance of the BRI Unit Desa System	7
2.1.3 Preliminary impact of the financial and economic crisis on the Unit Desa	8
2.2 Institutional type, governance and organizational structure	9
2.2.1 Institutional type and governance	9
2.2.2 Organizational structure	9
2.2.3 Lessons learned in institutional type, governance and organizational structure	10
2.3 Demand-oriented savings products and technologies	11
2.3.1 Characteristics of demand-oriented savings products and savings technologies	11
2.3.2 Design of demand-oriented savings products	12
2.3.3 Procedures to introduce demand-oriented savings products	13
2.3.3.1 <i>Introduction of SIMPEDES in three phases</i>	13
2.3.3.2 <i>Marketing</i>	14
2.3.4 Lessons learned in the design and handling of demand-oriented savings products and technologies	15
2.4 Management capabilities	15
2.4.1 General management capabilities	15
2.4.1.1 <i>Staff recruitment and training</i>	15
2.4.1.2 <i>Management information system</i>	16

2.4.1.3	<i>Comprehensive system of incentives</i>	17
2.4.2	Special management capabilities: Risk management	18
2.4.2.1	<i>Structure and risk exposure of assets</i>	18
2.4.2.2	<i>Collateral</i>	18
2.4.2.3	<i>Reduction of risks: Borrower selection, screening, monitoring and enforcement</i>	19
2.4.2.4	<i>Adequate provisioning for doubtful loans</i>	20
2.4.2.5	<i>Diversification of risks</i>	20
2.4.3	Special management capabilities: Liquidity management	20
2.4.3.1	<i>Diversification of liquidity risks</i>	20
2.4.3.2	<i>Liquidity reserves and cash management</i>	21
2.4.3.3	<i>Access to BRI liquidity pool</i>	21
2.4.4	Lessons learned in management capabilities, especially risk and liquidity management	21
2.4.4.1	<i>General management</i>	21
2.4.4.2	<i>Risk management</i>	21
2.4.4.3	<i>Liquidity management</i>	22
2.5	Regulatory and supervisory framework	22
2.5.1	External regulation and supervision mechanisms	22
2.5.2	Internal regulation and supervision mechanisms	23
2.5.2.1	<i>Built-in control</i>	23
2.5.2.2	<i>Management control/supervision</i>	23
2.5.2.3	<i>Internal audit</i>	24
2.5.3	Lessons learned in external and internal regulation and supervision mechanisms	24
2.6	Cost analysis of savings mobilization	25
2.6.1	Scope and quality of accounting and cost analysis	25
2.6.2	Methodologies to keep operation and transaction costs low for the financial institution	26
2.6.3	Methodologies to keep transaction costs low for savers	28
2.6.4	Lessons learned in the reduction of operating and transaction costs of the financial institution and the savers	29
3	CONCLUSIONS	30
3.1	Lessons learned from the viewpoint of BRI	30
3.2	Lessons learned from the viewpoint of the World Bank	30
3.3	Concluding assessment and critical issues	31
4	REFERENCES	33

5 ANNEXES	34
5.1 Annex 1: Macroeconomic, financial and social data	34
5.2 Annex 2: Institutional data	35
5.3 Annex 3: Performance indicators	36

ABBREVIATIONS

AO	Account Officer
ASKRINDO	Asuransi Kredit Indonesia (Indonesian credit insurance)
BI	Bank Indonesia
BIMAS	Bimbingan Massal (mass guidance)
BIS	Bank for International Settlements
BKK	Badan Kredit Kecamatan
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung
BPR	Bank Perkreditan Rakyat (People's Credit Bank)
BRI	Bank Rakyat Indonesia
BUD	Unit Desa Business (Urusan Bisnis Unit Desa)
CAMEL	Capital, Assets, Management, Earnings, Liquidity
CAR	Capital Adequacy Ratio
CGAP	Consultative Group to Assist the Poorest
DEPOSITO	Time deposit
GDP	Gross Domestic Product
GIRO	Demand deposit
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit GmbH
HIID	Harvard Institute for International Development
IBRA	Indonesian Bank Restructuring Agency
IMF	International Monetary Fund
IPTW	Insentif Pembayaran Tetap Waktu (incentive for payment on time)
KUK	Kredit Usaha Kecil (small credit quota)
KUPEDES	Kredit Umum Pedesaan (loan product for rural credit)
KURK	Kredit Uhasa Rakyat Kecil
KUT	Kredit Usaha Tani (farmer's credit)
LDR	Loan Deposit Ratio

LPSM	Lembaga Pembangunan Swadaya Masyarakat (self-help promotion institution)
MIS	Management Information System
OED	Operations Evaluations Department
PAKTO	Paket Oktober 1988 (financial sector deregulation package of October 1988)
PPD	Pos Pelayanan Desa (village service post)
PT	Perseroan Tabatas (limited liability company)
ROA	Return on assets
ROSCA	Rotating Savings and Credit Association
Rp	Rupiah
SBI	Sertifikat Bank Indonesia (Bank Indonesia Certificates)
SBPU	Surat Berharga Pasar Uang (Money Market Certificate)
SIBK	Sistim Insentif Pengembangan Kegiatan (incentive system)
SIMASKOT	Simpanan Masyarakat Kota (Urban Savings Product)
SIMPEDES	Simpanan Pedesaan (Rural Savings Product)
SKACIL	Skala Kecil (small scale rural savins product)
TABANAS	Tabungan Nasional (national savings)
TPD	Tim Pelyanan Desa (village service team)
UBM	Unit Business Manager
UDES	Unit Desa System
UDO	Unit Development Officer
USAID	United States Agency for International Development

LIST OF TABLES

Table 1:	Status of deposits by type of instrument as of December 1996	14
Table 2:	Record-based borrower classification system	19
Table 3:	Income and cost structure of the BRI unit system	25
Table 4:	Cost of savings mobilization of the BRI unit system in 1996	27

1 CONTEXT

1.1 Macroeconomic context

1.1.1 Macroeconomic stability and sustained growth (1984-1996)

Indonesia is the fourth largest country in the world in terms of population. Her more than 200 million people are spread over an archipelago of almost 14,000 islands. The country is rich in natural resources with oil and gas as main export commodities. Major economic reforms started in 1983 when the drastic decline of oil prices forced the country to restructure and diversify its economy.

For more than a decade - from the mid-1980s until 1996 -, the gross domestic product (GDP) expanded at annual rates of 6 to 8% and Indonesia joined the ranks of the fastest-growing countries in Southeast-Asia. In 1995, the per capita income (GDP) has surpassed the mark of US\$1,000. The manufacturing sector accounts for the main share of GDP with 33%, followed by services (28%), agriculture (17%) and commerce and others accounting for the remaining share.

Macroeconomic growth and stability have been the result of prudent economic policy. In particular, pursuing a balanced fiscal budget and an open capital account have imposed economic and financial discipline and have kept inflation at manageable levels between 5 and 10% for almost fifteen years.

1.1.2 The financial and economic crisis (since 1997)

The Asian financial crisis started as a currency crisis with the devaluation of the Thai currency in July 1997 and within a few weeks spread to other Asian countries. Initially, Indonesia appeared to have stronger macroeconomic fundamentals than Thailand or South Korea, but has actually been hit hardest. Assistance from the IMF in October 1997 could not prevent the country moving towards an economic collapse.

The major onslaught of the crisis came in late 1997 and early 1998. Within a few months, the country's currency - the *Rupiah* - experienced a dramatic 80% plunge in its value against the US dollar, followed by sharp increases in inflation and interest rates. The exchange rate of the *Rupiah* against the US dollar fell from 2,400 to levels of 15,000 and lower, representing the largest single decline in currency value for any country since World War II. Inflation is predicted to come close to 100% in 1998. Economic growth slowed to less than 5% for the whole of 1997, and for 1998 the economy is predicted to contract by 15%.

The severest economic crisis in 30 years provoked massive political and social unrest that reached a preliminary climax in May 1998 with the downfall of President Suharto and his government. A long period of political, social and economic stability had come to a sudden end.

With the crisis still ongoing and unfolding, it is too early for a detailed assessment of its impact. What has become clear so far, however, is that the crisis is threatening the development achievements of the last three decades. This applies to the economy in general and to the financial sector in particular.

1.2 Context of the financial sector

1.2.1 Role of the central bank

The Central Bank, Bank Indonesia (BI), is under the control of the Ministry of Finance, and, thus, not independent from the government. However, the combination of no fiscal deficits, an open capital account and avoiding excessive inflation has rendered the issue of Central Bank autonomy largely irrelevant in the Indonesian context. The coalition of the Central Bank, the Ministries of Finance and of Planning, and the President, strongly supported macroeconomic stability (Cole/Slade 1997).

The main tasks of Bank Indonesia include control of the money supply, ensuring price and exchange rate stability and supervision of the banking sector. Open market operations are conducted with two major instruments, namely Bank Indonesia Certificates (SBI) and money market securities (SBPU).

The minimum reserve requirement has remained unchanged for nearly a decade. Based on provisions issued in 1988, banks were required to keep 2% of their funds, consisting of demand deposits, time deposits, savings deposits and other liabilities, as required reserves. To fulfill the requirement, banks were allowed to keep the reserves in cash on hand and/or demand deposits with Bank Indonesia. The comparatively low level and the option to retain the reserve in the form of cash gave a considerable boost to deposit mobilization and lending after 1988.

To curb the growth of the money supply, particularly bank credit, the reserve requirement was raised to 3% of banks' funds in December 1995 and again in April 1997 to 5%. The new regulation also stipulated that reserves should be placed in Bank Indonesia as statutory reserves.

1.2.2 General development and characteristics of the financial sector

The macroeconomic environment in Indonesia has had a strong influence on the pattern and pace of financial development. The economic reforms following the decline of oil prices in 1983 included the first of a series of financial reform measures.

The major steps of deregulation of the financial sector include the following:

- In June 1983, the Central Bank announced the removal of all bank credit ceilings and interest rate controls on state banks. Previously, private banks had not been subject to interest rate ceilings, but were subject to credit ceilings, which had limited their interest in mobilizing deposits.
- In October 1988, the government announced a new set of reform measures known under the acronym PAKTO '88 which opened entry in the financial markets to new participants and aimed at deliberate promotion of competition among banks. Licensing of new banks and the opening of branches were permitted. New financial services such as factoring, consumer credit, venture capital, and securities dealing and underwriting were opened up to commercial banks. Banks were allowed to introduce their own savings products, and the reserve requirement was lowered to a uniform 2% on all deposits. This caused an explosion of bank deposits from US\$16 billion in 1987 (before the reform) to US\$118 billion at the end of 1996.
- Deposit mobilization received another boost in January 1990, when the Central Bank announced the immediate termination of more than 30 government-sponsored credit programs, and with it, the phasing out of refinancing facilities (BI liquidity credit) which put increased pressure on banks, especially state banks, to search for their own funds. This set off fierce competition for deposits.

- A new banking legislation was issued in 1992 that consolidated the earlier reform measures and introduced a system of regulation and bank supervision in compliance with international standards. Bank supervision is carried out by Bank Indonesia on the basis of CAMEL criteria.¹ Furthermore, the law introduced two categories of banks, commercial banks and rural credit banks (BPRs) and stipulated that only banks falling under these categories were allowed to mobilize deposits from the public.

The number of banks and bank offices increased considerably. In 1996, 240 commercial banks with a total of 6,750 offices were operating throughout the country. In addition there were almost 2,000 BPRs and more than 7,300 rural financial institutions.²

The reforms have altered the structure of the banking sector completely and have fostered a dynamic development of private banks. In the early 1980s, the banking sector was dominated by seven state banks. Within little more than a decade, from 1983 to 1996, the state banks' market share in deposits declined from two thirds to one third, and their share in credit from 78% to 38%.

The ratio of M2 over GDP increased from pre-reform levels of 20% to around 53% in 1996, illustrating a significant improvement in financial deepening.

1.2.3 Outreach and characteristics of state interventions

In the course of financial reform since 1983, Indonesia has managed to remove many direct controls over financial institutions and shift them to increasingly market-oriented operations.

Special financial programs targeted to helping farmers, small traders and enterprises through subsidized interest rates and restrictive credit allocation have not been generally successful. The BIMAS credit program in support of rice cultivation collapsed in 1983 and was phased out shortly after the first reform step. A large subsidized credit program for small and medium enterprises was terminated in 1990. Few direct intervention areas have remained.

One of the major instruments of credit allocation is a credit quota that requires all banks to extend 20% of their loan portfolios to small enterprises (KUK). Bank Indonesia strictly monitors adherence to this regulation, and any shortfall has an impact on the rating of soundness of the respective institution. As rural credit banks (BPRs) generally fulfill the KUK-quota, large commercial banks may refinance BPRs in order to meet the requirement.

In addition, there are still some subsidized credit programs for farmers and cooperatives. These programs are primarily implemented by state commercial banks, such as BRI. Refinancing in the order of 70-80% is provided by Bank Indonesia. In addition, loans are mostly guaranteed by credit insurance institutions such as the government-owned ASKRINDO. The role of these programs in terms of performance and outreach is rather limited in comparison with the volume of credit extended by state and private banks on market-based conditions.

1.2.4 The impact of the crisis on the financial sector

What began as a currency crisis, rapidly evolved into a major financial crisis affecting particularly the banking sector.³ The main transmission factor has been the large foreign

¹ Capital, Assets, Management, Earnings, Liquidity.

² Not including the 3,600 BRI units.

debt of private corporations including banks at an estimated US\$68 billion. Private banks alone had accumulated almost US\$10 billion in foreign debt over the past ten years. As the major part of the private debt - an estimated 60% - was not hedged, the dramatic fall of the currency has led to an outright explosion in the levels of debt and debt service payments in Rupiah terms.

The banking industry was affected in two ways. Firstly, the commercial banks' foreign debt reached a level that was three times larger than their equity. Many banks were seriously undercapitalized. Secondly, non-performing loans have been skyrocketing because many private enterprises were unable to fulfill their debt service payments. Reliable information on the size of bad debt is hardly available but some experts put the share of non-performing loans in the banking sector at some 60% of the total loan portfolio. This situation will lead many banks into bankruptcy.

The closure of 16 banks (out of a total of 240 commercial banks) in November 1997 triggered a serious confidence crisis among depositors which resulted in a massive withdrawal of deposits from the banking sector in general and from private banks in particular. The panic faded in January 1998 with the announcement of a government guarantee of all deposits but the relocation of deposits from private to state and foreign banks has nevertheless continued.

Following the agreement with the IMF, the government created the Indonesian Bank Restructuring Agency (IBRA) to supervise and control ailing commercial banks. As of mid-1998, 54 banks have been put under IBRA supervision and seven banks have been effectively closed. A major restructuring of the banking industry is underway and it is far from clear how and when a consolidation of the financial sector can be achieved.

1.3 Social and socio-cultural context

Indonesia is comprised of an archipelago of almost 14,000 islands and a population of almost 200 million. The average population density of around 100 people per square kilometer masks the highly uneven distribution of inhabitants, mainly between Java/Bali and the so-called outer islands, including Sumatra, large parts of Borneo and the vast land area of Irian Jaya. Java/Bali consist of only 7% of the land area, but more than 60% of Indonesia's population is concentrated there. Central Java, for example, is one of the world's most densely populated agricultural areas, with 1,000-1,500 people per square kilometer in some areas. In contrast to Java, large areas on the outer islands have less than ten people per square kilometer.

Despite urban agglomerates like Jakarta, Surabaya and Medan to name a few, the majority of the population still lives in rural areas, both on Java and more so on the outer islands. Unlike in many other countries, the government of Indonesia has maintained favorable terms of trade for rural areas compared with urban centers and has not distorted prices against farmers in favor of the urban population (Patten/Rosengard 1991).

Indonesia is ethnically and culturally highly diverse⁴ with a large number of distinct population groups speaking more than 200 different local languages. A common language, *Bahasa Indonesia*, was introduced in the 1920s to facilitate communication and integration.

³ For first-hand data and early assessment of the impact on the banking sector see Reille/Gallmann (1998).

⁴ The country's political slogan is: *Unity in Diversity*.

The social web and cohesion, especially in the urban agglomerates, has been seriously threatened since the outbreak of the financial crisis in 1997. The unfolding economic crisis has provoked social unrest and riots and has sparked ethnic and religious conflicts throughout the archipelago.

1.4 Classification of the macroeconomic, financial and socio-cultural context

From the mid-1980s until the late 1990s, Indonesia experienced a rapidly expanding economy and stable macroeconomic conditions, which were conducive and favorable for the development of various economic sectors including the financial sector. The financial system has undergone major reforms over the past decade and has developed into one of the most liberal and progressive financial sectors in Asia.

With the onset of the financial and economic crisis in late 1997, many of these achievements are seriously at stake. The Indonesian economy is in recession and the financial sector is in a process of comprehensive restructuring. The number of people in poverty has doubled and the social harmony that has characterized the country for almost one generation is threatened by social riots and political unrest. With the crisis further unfolding, Indonesia is approaching the end of the century with a high degree of uncertainty about its political, economic and social future.

2 INSTITUTIONAL ANALYSIS

2.1 General characteristics of the BRI Unit Desa System

Bank Rakyat Indonesia (BRI) is one of five state-owned foreign exchange commercial banks in Indonesia, with primary responsibility for providing rural banking services and, in particular, for promoting the development of the agricultural sector. Established in 1968, BRI is the successor to *De Poerwokertosche Hulp-en Spaarbank der Inlandsche Hoofden*, founded in 1895. BRI has grown to become one of Indonesia's largest banks. As of December 1996, total assets were US\$12 billion, including a net loan portfolio of almost US\$11 billion.

In terms of outreach, BRI's branch network is the most extensive of all banks in Indonesia and effectively covers the entire nation. In addition to four branches abroad, BRI has 320 branches that are located at the district or municipality level. There are only 296 districts/municipalities in Indonesia. Furthermore, the bank has an even more extensive network of 3,600 retail outlets at the sub-district level, known as BRI village units (*Unit Desa*).⁵

Although both branches and units are part of the same organization, the Unit Desa System (UDES) can be clearly distinguished from the branch network in terms of target groups, services and mode of operation. The branches' commercial operations cater to well-to-do private and corporate customers in and around district towns. In addition, BRI branches still administer government-sponsored program loans - some at concessional interest rates - to priority sectors and target groups, such as farmers, cooperatives, etc. UDES operates on a full commercial basis, with each unit acting as a semiautonomous entity serving micro and small customers, predominantly in the rural areas. It is the UDES that has gained national and international reputation as a success story in microfinance.

2.1.1 Evolution of the BRI Unit Desa System⁶

UDES was established in the early 1970s to channel BIMAS (mass guidance) credit to farmers. The BIMAS program's primary objective was to promote national rice self-sufficiency by bringing the green revolution to Indonesia. The interest rates were fixed by the government at low levels, resulting in annual operational losses. UDES's operations could only be sustained through administrative subsidies from the Ministry of Finance. In the early 1980s, the BIMAS lending volume declined and default rates climbed above 50%. When BIMAS was phased out at the end of 1983, and with it the subsidies to unit operations, BRI was faced with a difficult choice: either introduce drastic measures to increase the profitability of the units, or close them down. With the encouragement of the Ministry of Finance, BRI decided to convert the UDES into a rural banking network that would meet a wide range of financial needs in a flexible and financially viable way.

Viability considerations guided the transformation of the units from BIMAS conduits to full-service rural banks. A massive restructuring of the entire UDES was necessary. Almost one third of the units (1,135 out of 3,626) were identified as having low potential. However, they were not closed down, but were designated village service posts (PPD), kept open for one to six days a week, depending on the volume of customers and transactions. The

⁵ The name Unit Desa (*desa* = village) is misleading, as the units are actually not located at the village level but mostly in sub-district capital towns. More recently, many units have been opened in urban areas as well. Therefore, the bank itself refers to BRI units.

⁶ See Patten and Rosengard (1991) for a detailed overview of Unit Desa development.

service post was manned by a village service team (TPD) and operated as an extended arm of the nearest high-potential unit. Today, many of the PPDs have been upgraded to full units and the number of units is roughly the same as it was at the outset.

In February 1984, a single loan product for general rural credit (KUPEDES) was introduced. KUPEDES is non-targeted and non-subsidized, and is available to any creditworthy customer for any kind of productive enterprise. Loan terms are up to 24 months for working capital and up to 36 months for investment capital.

Most importantly, the 1983 financial deregulation allowed the banks to set interest rates at a level that would enable them to cover their costs. Hence, KUPEDES interest rates were set at 1.5% flat per month for working capital loans and 1% for investment loans. The flat rates are calculated on the borrower's original balance and work out to annual effective rates of 33% and 22% respectively,⁷ if loans are paid on time. KUPEDES borrowers must provide sufficient collateral to cover the value of the loan, usually in the form of land titles, but also by the pledging of buildings, motorcycles or other property. The maximum loan size has gradually been raised over the years from US\$1,000 at the start to US\$10,500 today.

KUPEDES had a successful start and after two years of operation it became clear that the BRI unit system could be financially viable. In April 1986, BRI introduced a savings product specifically designed for the UDES: SIMPEDES (rural savings). This was a decisive move towards the development of a more comprehensive and complete rural banking system.

2.1.2 Current performance of the BRI Unit Desa System

As of December 1996, the UDES was comprised of 16.1 million deposit accounts with a deposit volume of US\$2.7 billion and 2.5 million borrowers with loans outstanding in the amount of US\$1.7 billion. Since the introduction of KUPEDES 13 years ago, 18.5 million loans at a value of more than US\$10 billion have been disbursed. Most of the loans were repaid on time. In 1996, loans in arrears accounted for less than 4% of the loan portfolio and the long-term loss ratio was 2.1%.

The outreach of the savings program that started 11 years ago is even more impressive. It is estimated that more than 30% of all households in Indonesia have a SIMPEDES account. In December 1996, the average savings balance stood at US\$163, the average outstanding loan size at US\$689. Data collected in 1995 on a survey basis indicate that 71% of the savers held a balance of less than US\$87. The small sizes of account balances⁸ demonstrate a significant degree of outreach to small and microcustomers.

Furthermore, the UDES perform important functions with regard to financial intermediation. For example, transformation of size has successively increased over the past years. In 1996, the ratio of savers to borrowers was 6.6 and the average loan amount was more than four times the average deposit account balance.

The early unit system, characterized by a lack of funds and operational losses, has been transformed into a self-sufficient and highly profitable rural banking network. Today, the unit system accounts for 25% of total BRI assets and 15% of the loan portfolio, but it contributes 70% of the bank's total savings deposits. The unit system has developed into a major fund provider for BRI. Four years after inception, the savings mobilized by UDES had surpassed

⁷ Based on a twelve month loan with monthly installments of equal principal amounts according to the following formula: $[i \times 2 \times t / (n+1)] \times 12$, where i =monthly flat rate, t =loan term in months, n =number of monthly installments.

⁸ As a reference, the average per capita income in Indonesia was US\$1,023 in 1995.

the KUPEDES loans outstanding, both in terms of number of customers and amounts. Today, almost half of the UDES deposit funds are transferred to the BRI branch system.

In 1996, the units generated a profit of US\$178 million compared to a consolidated profit before tax for the whole of BRI of US\$145 million. The figures indicate that the entire profit of BRI is effectively generated by the UDES. Moreover, a considerable share of the UDES profit is needed to cover losses in other parts of the bank's network, in particular the branches.

Within little more than a decade, the earlier situation has been reversed: it is not the microfinance sector that needs the bank's support, but the opposite is the case. BRI is heavily dependent on UDES and its microfinance performance both in terms of funds and profits generated. The unit system significantly contributes to the viability and sustainability of BRI as a whole.

2.1.3 Preliminary impact of the financial and economic crisis on the Unit Desa

Preliminary data and reports indicate that the BRI Unit Desa appear to have withstood the first year of the crisis relatively well and, in fact, even expanded their operations (McGuire/Conroy 1998).

From June 1997 until June 1998, the number of deposits increased sharply from 17 million to more than 20 million,⁹ the deposit volume almost doubled from Rp7.7 trillion to Rp13.6 trillion.¹⁰ This marked trend reflect the decline in public confidence and the depositors' flight to security from private to state banks.

Contrary to most other banks, loans outstanding also increased - though at a much lesser pace - from Rp4.3 trillion to Rp4.6 trillion. However, this does not take into account the dramatic increase in consumer prices of more than 50%. In constant prices, the increase of the deposit volume was much less but still significant while the loan portfolio experienced a considerable decline in value.

So far, the quality of the KUPEDES loan portfolio has remained surprisingly high. The portfolio at risk increased from 4.4% to 5.8% over the one-year period. However, in view of the widening and deepening economic crisis, repayment problems may arise with a certain time-lag.

Profitability has suffered somewhat due to increased provisions for doubtful loans and due to higher interest expenses on deposit accounts. However, the decline in profitability does not pose an immediate threat to the viability of the UDES as the profit margin has been on the high side prior to the crisis.

Overall, the BRI Unit Desa have weathered the storm so far and have even benefited from the crisis to some extent. But in view of the uncertainty about the political and economic future of the country, more problems are still likely to come and the ultimate impact of the crisis can only be assessed in the medium-term.

⁹ In March 1998, the number of deposits had reached 19.1 million.

¹⁰ Applying a constant exchange rate of Rp2,400/US\$ which was valid prior to the crisis, deposits increased from US\$3.2 billion to US\$5.7 billion.

2.2 Institutional type, governance and organizational structure

2.2.1 Institutional type and governance

Based on the new Banking Law No. 7 of 1992 and Government Regulation No. 21 of 1992, BRI underwent a change in status and became a limited liability company (PT) However, 100% of its shares are still owned by the state. The change in legal status was applied to all state banks and was pursued to prepare the grounds for an eventual (partial) privatization.

BRI is governed by a three-member Board of Commissioners representing the shareholder(s), i.e. the Ministry of Finance. The bank's operations are managed by a Board of Directors comprised of seven members and headed by the President Director.

As a bank fully owned by the government, BRI has always played a major role in the implementation of rural credit programs designed by the government for priority sectors and target groups. BRI branches provide subsidized loans under the farm credit program (KUT), the successor to BIMAS, and to politically-favored village cooperatives. However, with regard to the BRI UDES, the government has maintained a hands-off position since its re-design in 1984. On the contrary, the new Minister of Finance who came to office in 1983, actively supported the establishment of a self-sufficient, market-based rural banking network.

A factor for the success of the UDES development was the leadership of BRI's president director from 1983 to 1992 as well as the other members of the Board who led the development of what they called BRI's new culture and Indonesia's new rural banking system.¹¹

2.2.2 Organizational structure

The units represent the bottom layer of a four-tier organizational structure of BRI comprised of:

- The Head Office in Jakarta;
- 15 regional offices;
- 320 branches at the district level; and
- 3,599 units at the sub-district level as well as village service posts.

The nucleus of the unit system, the Unit Desa itself, is commonly found in a central location of the sub-district town, often near the market place. The BRI unit typically occupies a one-room office. In many cases, the office is rented in order to keep overhead costs low. A unit covers an average of 16-18 villages at the sub-district and serves an average of 4,500 savers and 700 borrowers.

The operational structure of each unit is kept simple; its size is purposely kept small. The standard unit consists of four staff with clear job descriptions and division of responsibilities:

- A unit chief, responsible for managing all activities of the Unit Desa;
- An account/field officer, responsible for undertaking the field work necessary to verify information in loan applications and to pursue delinquent borrowers;
- A teller, responsible for serving the customers at the counter; and

¹¹ Robinson 1992, pp.48-49.

- A desk officer, responsible for maintaining records and files and for preparing financial statements and MIS reports.

With increasing volume of operations, additional staff is posted to a unit up to a maximum of 11 people. The staffing of units is determined by productivity ratios: one account officer per 400 borrowers, one teller per 200 daily transactions in automated units and per 150 daily transactions in non-automated units. If the business of a unit expands beyond the maximum staff limit, the unit is split, thus keeping the operation small and focused.

Unlike earlier when units had merely been a lending window of the BRI branches, they are now separate financial entities with their own balance sheet and profit and loss account. This has instilled accountability and has created a high degree of responsibility among unit chiefs and staff. The evaluation of Unit Desa performance is based primarily on their profitability, rather than on hectares covered or loans disbursed, as was the case in the BIMAS period.

Decision-making authority on most aspects of the unit operations rests with the unit chief. In particular, the chief may sanction loans up to an amount of US\$10,500. Borrowers requesting loan amounts beyond that ceiling are referred to the branch.

BRI branches are generally located in district towns. In addition to their own retail business and program lending, the branches are responsible for guiding and supervising the Unit Desas located in their area of operation. A special section for Unit Desa Business Operations is attached to every branch and controls 10-15 units on average.

Branch and unit operations are overseen by the regional offices. Their major functions include the guidance, supervision and internal audit of the branches and the units.

At the head office, a separate division for Unit Desa Business (BUD) monitors the performance of the units and consolidates the reporting from the regions into a national-level management information system that provides the basis for policy decisions. During the first decade of transformation, the Unit Desa operations were directly supervised by the President Director himself. Today, the division is under the responsibility of the Managing Director. Policy and technical advice has been provided by a team of international consultants from the Harvard Institute for International Development (HIID) sponsored by the World Bank and USAID.

2.2.3 Lessons learned in institutional type, governance and organizational structure

The major lessons may be summarized as follows:

- The timing of the introduction of a savings-based rural banking system in early 1984 was appropriate as several events coincided. This included among others: financial sector deregulation in June 1983 allowing banks to set their own interest rates, the choice forced by the collapse of the BIMAS credit program, and the declining acceptability of subsidized programs in general, as well as key personnel changes in the government (new finance minister) and in BRI (new president director) in 1983.
- There was strong support from the government, especially by the Minister of Finance and by other high-level government policy makers, but there was little or no interference in the unit operations. The unit system has been kept free from typical interventions such as credit targeting, interest rate restrictions, provision of cheap funds, etc.
- Strong leadership has proven a crucial factor. BRI's president director from 1983 to 1992 took personal initiative and responsibility for the development of the unit banking system.

- Much of the success may be attributed to the organizational set-up of the Unit Desa itself as a highly decentralized and semiautonomous financial entity. The individual unit was purposely kept small, e.g. through limits on the number of staff, and its operations focused.
- Simplicity and transparency are important for the customers as well as for unit managers and staff. With just one loan product and four deposit products, operations are easily standardized.

2.3 Demand-oriented savings products and technologies

2.3.1 Characteristics of demand-oriented savings products and savings technologies

Since 1984, savings mobilization has been an integral part of the unit banking philosophy and strategy. After decades of providing cheap credit, BRI has come to recognize the huge demand for savings services among microfinance clients. Because more people in rural areas tend to be savers than borrowers at any one time, providing better savings services was seen as more effective in achieving an equitable distribution of banking services than providing cheap credit. The objective of creating a self-sufficient network of financial intermediaries was based on the belief that the large demand for loans can be financed by locally-mobilized savings.

From the beginning, BRI has focused on voluntary savings. The bank believes that compulsory savings and voluntary savings are incompatible when offered by the same institution.

The BRI units offer a set of four deposit instruments designed to meet different types of demand. The products, which primarily differ in terms of liquidity and return, include the following:

- SIMPEDES, the savings product developed for the rural BRI units, SIMASKOT for urban units;
- TABANAS, the national savings product originating from the pre-deregulation era;
- DEPOSITO, time deposits;
- GIRO, a type of current account.

SIMPEDES was designed and introduced as a counterpart to KUPEDDES in 1986 and has developed since to become the flagship of the unit system. The product aims at small savers who demand high liquidity. In addition, the instrument allows deposits to be made in the name of a rural organization under joint savings, held by the group leader or treasurer.

The essential features of SIMPEDES are:

- Monthly compounded interest rates that provide a positive real return to depositors. Interest rates are differentiated according to deposit size. As of April 1997, the following interest rate structure applied:

below US\$4.20:	0.0%
US\$4.21-US\$420:	10.0%
US\$420-US\$2,100:	11.5%
above US\$2,100:	13.0%

- Savers are permitted unlimited withdrawals.

- Participation in a lottery. There is a prize drawing every six months, using account numbers and the amount in the SIMPEDES account as a basis for issuing lottery coupons.

As the unit network expanded into urban areas, an urban counterpart to SIMPEDES was created and introduced in 1989: SIMASKOT (savings of the urban community). SIMASKOT has the same features as SIMPEDES, except for the interest rate structure, which takes the larger savings capacity of urban customers and the stronger competition from other banks into account. Therefore, the minimum balance for which interest is paid is US\$10.50. Interest rates are generally higher than those for SIMPEDES and range from 11% to 14.5%.

TABANAS was the national savings product introduced by the government in the 1970s. The product is offered by most banks. TABANAS is aimed at depositors who want middle levels of both liquidity and return. For instance, schoolchildren and other holders of small accounts are encouraged to save in TABANAS. TABANAS provides higher interest than SIMPEDES, but allows only two withdrawals a month. As of April 1997, the interest rate was 13% on minimum monthly balances above US\$4.20. As with SIMPEDES, balances below that amount receive no interest.

DEPOSITO is a fixed deposit instrument designed for wealthier villagers and firms that want to realize higher returns, and also by those saving for long-term goals, such as building construction, land purchase, and children's education. It is available for three, six, nine, twelve and twenty-four month terms at interest rates of 14-15%, depending on the maturity.¹²

The fourth instrument, GIRO, a type of low-interest current or demand deposit account, was designed primarily for specialized institutional purposes and is for use by institutions that must meet special government requirements.

2.3.2 Design of demand-oriented savings products

Market studies and research began in 1982 and demonstrated that there was extensive rural demand for financial savings facilities in which financial assets, usually kept in the house, and savings from income flows could be safely deposited. In addition, it became evident that many villagers would convert some non-financial savings into institutional deposits if appropriate facilities were available.

BRI found that the key of market research was to learn from the clients what they wanted and then incorporate this information into both the product and its advertising. Studies on savings motives and preferences of rural people throughout Indonesia identified four major characteristics a savings facility must combine:

- Safety/security;
- Convenience;
- Liquidity; and,
- Positive return.

Hence, it became clear that BRI must first arrange to provide its savers with security, convenience, liquidity and return - and then publicize its instruments and services in locally appropriate ways.

¹² As of April 1997.

In regards to security of deposits, what is most important to the saver is the reputation of the bank. BRI was well known among the villagers because it had been the only major bank in rural areas for decades. Furthermore, BRI could embark on its comparative advantage as a government bank - a nearly unlimited guarantee for safety and security in the eyes of the rural people. Deposits offered by the units are implicitly guaranteed by BRI. Although the guarantee is not explicit, it is widely credited.

BRI sought ways and means to provide convenience to its depositors. For the customer, convenience is measured in terms of transaction costs. Physical proximity, easy access, little waiting time and fast service reduce the cost and the time needed for making deposits and withdrawals. As mentioned earlier, the BRI unit network is the most extensive of all banks in Indonesia. BRI units are found in more than 80% of all sub-districts in the country and are thus within easy reach of the majority of the rural population. Furthermore, the physical re-allocation of units from farm outposts to commercial and market places in the sub-district town was a decisive step of placing the units in the center of rural economic activity and nearer to the bulk of the clients.

The third element identified was the liquidity of deposits or ease of withdrawals, an aspect particularly important for the design of savings products. BRI decided to offer a product mix of liquid, semi-liquid and fixed deposits to cater to different liquidity preferences. The national savings product TABANAS had been offered by the units since 1976. Studies showed that the limitation of withdrawals (two per month) was an important psychological barrier to the people in rural areas, even though few customers actually make two withdrawals in a single month. The findings resulted in the design of SIMPEDES, where savers are permitted unlimited withdrawals, a feature that has proven most important for the success of the program. In addition, TABANAS was continued as a semi-liquid product and fixed deposits previously available from BRI only through its branches were introduced at the units as well.

Depositors expect a positive real return on their savings. Since the inception of the savings program, this principle has guided policy makers in setting interest rates at appropriate levels. With the exception of GIRO and small SIMPEDES/SIMASKOT accounts, the deposit instruments have generally provided positive real interest rates. Over the past ten years, inflation has oscillated between 5-10% while interest rates on deposits were continuously above 10%.

Furthermore, research findings showed that lucky games and gambling were popular among rural people. Drawing the lot in an *Arisan*, the Indonesian version of Rotating Savings and Credit Association (ROSCA) which is highly popular, is always a notable social event. This observation induced policy makers to equip the SIMPEDES savings product with a lottery. Further market research was carried out on such specific matters as what kind of lottery prizes were popular, what kind of bank book was wanted, and what kind of publicity was effective.

2.3.3 Procedures to introduce demand-oriented savings products

2.3.3.1 Introduction of SIMPEDES in three phases

After the features of the new product had gained shape, SIMPEDES was introduced by BRI through the unit system in three steps:

- First, as a pilot project in the units of one branch in November 1984;
- Second, as a pilot project in the units of twelve branches in mid-1985; and,
- Nationwide in April 1986.

SIMPEDES was first introduced in the units of the BRI branch in Sukabumi on the island of Java. The pilot project quickly showed evidence of massive demand for the liquid SIMPEDES instrument despite a lower interest rate than TABANAS. On the other hand, it also became clear that SIMPEDES, in its first design, was a labor-intensive and expensive way to raise funds. As more accounts were added daily, it seemed either that additional staff would have to be employed, raising costs, or that the workload would cut into KUPEDES lending, lowering income. Either way, the profitability of the units would be negatively affected. It was decided, therefore, that the SIMPEDES instrument would have to be revised before it could be expanded to other areas.

A second-stage pilot project was begun in the units of twelve BRI branches on Java introducing a modified, lower-cost SIMPEDES instrument. The changes included a split interest rate, determined by the minimum monthly balance; holding lotteries semi-annually instead of quarterly; and improving efficiency in administration. During the second stage, the modified SIMPEDES instrument was adjusted further and adapted in various ways to rural conditions.

In April 1986, BRI began expanding the modified SIMPEDES instrument to other areas and by September of the same year, it was available through the unit system nationwide. Hence, SIMPEDES was introduced into the national system nearly two years after KUPEDES lending had started, mainly for reasons relating to BRI staff capacity. Yet it must be emphasized that credit, savings, and the spread in interest rates were planned together from the beginning of 1984.

2.3.3.2 Marketing

The introduction of SIMPEDES was accompanied by a complete overhaul of BRI's public relations and marketing (Robinson 1994). The units used creative approaches. They conducted strategic mapping of potential savers, advertised their services, visited potential customers, and established links with village chiefs and community leaders.

The semi-annual lotteries, which are held in a district-level ceremony, have developed into popular and effective public relations events. They provide an opportunity to invite local dignitaries and to inform the community about BRI and its services.

Table 1: Status of deposits by type of instrument as of December 1996

Deposit type	Number of accounts	Shares	Amount (US\$ million)	Shares
SIMPEDES/SIMASKOT	11,432,611	70.8%	2,259	76.1%
TABANAS	4,543,713	28.1%	330	11.1%
DEPOSITO	108,748	0.7%	325	11.0%
GIRO	58,664	0.4%	51	1.7%
Total	16,143,736	100.0%	2,965	100.0%

Ten years of operation proved SIMPEDES (and its urban counterpart SIMASKOT) to be the savings instrument of choice among BRI unit customers. As of December 1996, 71% of all accounts and 76% of the deposit amounts were under SIMPEDES/SIMASKOT. This shows that the design of the product and the service offered is well-tuned to the demand of rural people. The lottery is a popular feature and generates considerable excitement among SIMPEDES savers.

2.3.4 Lessons learned in the design and handling of demand-oriented savings products and technologies

The lessons learned may be summarized as follows:

- Savings mobilization has been an integral part of the rural banking philosophy. Although SIMPEDES, the main savings product, was introduced nationwide two years after the start of KUPEDES, it must be emphasized that savings, credit and the spread in interest rates were planned together from 1984.
- Extensive research was conducted on what features customers wanted and why they wanted these. The studies showed that at least four aspects were important: security, convenience, liquidity and return. This information was then used both in the design of the instruments and in the advertising messages.
- As a government bank operating in rural areas for decades, BRI has had a comparative advantage in guaranteeing security to its depositors. With the Unit Desa network extending to the sub-district level, BRI has been able to provide convenient services to rural customers.
- Responding to different liquidity preferences, BRI has designed a product mix covering the entire spectrum of liquid, semi-liquid and fixed deposit instruments. Experience has shown that savers place high priority on liquidity. Having a choice between instruments with different liquidity and return features, three quarters of the depositors opted for SIMPEDES, which allows unlimited withdrawals.
- Interest rates are important but not decisive. SIMPEDES offers a lower return than other products - though always positive in real terms.
- Another major attraction of SIMPEDES is the participation in a lottery. This single factor has certainly contributed to its success to a large extent.
- Sequencing is crucial in the introduction of voluntary savings mobilization because it entails many aspects to be considered, such as product design and testing, marketing and advertising, administrative preparations, staff training and the like.
- Field testing has proven to be essential. The SIMPEDES instrument, as replicated throughout Indonesia, had undergone significant modifications resulting from pilot project findings.

2.4 Management capabilities

2.4.1 General management capabilities

2.4.1.1 Staff recruitment and training

The transformation of units from government-type loan disbursement agencies to full-service rural banks operating in an increasingly competitive environment had to be accompanied by a major effort in human resource development. After the break-down of the BIMAS program, the unit system employed more than 14,000 staff that had to be re-oriented. BRI faced a major challenge in transforming administrators and bureaucrats into bankers. This required not only massive training for the transfer of knowledge and the development of new skills, but necessitated a fundamental change in attitude.

The transition from old to new culture was supported by the recruitment of new, young and well-educated staff (Robinson 1992). Over the past ten years, the number of unit personnel has increased by about 50%. The recruitment policy emphasizes the hiring of professional

staff, preferably from the area where the unit is located, who master the local language and who are familiar with the local culture and customs.

One of the success factors has certainly been the BRI staff training program. The bank operates five in-house training centers located throughout Indonesia. Three types of standard training programs are offered:

- Recruitment training for newly recruited staff for two months;
- Promotional training for staff selected for promotion to new positions; and,
- Refresher/application training, the latter for introducing new regulations or procedures.

Every unit staff is sent for application and/or refreshing training at least twice a year. Courses are kept short and last no longer than one week to avoid friction and disturbances of the unit operations.

2.4.1.2 Management information system

Effective management crucially depends on a well-functioning management information system (MIS). The BRI UDES MIS consists of three principal components, or sub-systems:

- A sound book-keeping and accounting system;
- A set of clear performance criteria and indicators; and,
- A focused reporting system.

An accurate, functional and transparent book-keeping system forms the basis of the MIS. Each Unit Desa is a separate accounting unit with its own balance sheet and income statement to reflect the true financial condition.

Simplicity and transparency have proven to be important. With just one loan product and four deposit products, operations are easily standardized and book-keeping can be kept lean. 99% of all units are automated, most equipped with multi-user systems, which greatly facilitates the administration of thousands of small accounts and the provision of accurate and timely management information.

The heart of the MIS is a standard set of objectives and transparent performance indicators that essentially resemble the major CAMEL criteria¹³ applied by Bank Indonesia for external supervision. The performance of each unit is monitored and assessed along the following five criteria:

- Increase in profit;
- Increase in savings mobilization (number and amounts);
- Increase in KUPEDES lending (number and amounts);
- Reduction of arrears and long-term loss ratio; and,
- Improvement in the quality of management and administration.

Focusing on only five significant indicators that reflect the units' performance to a large extent has provided managers and supervisors with an effective tool of early warning. The system has been designed not only for higher-level management, but primarily for the unit

¹³ Except for capital adequacy.

managers and staff themselves. The simplicity and focus of the MIS facilitates its active use for self-monitoring at the lowest, yet most important, management level: the Unit Desa.

Timely provision of relevant and accurate data to higher management levels is ensured through a lean reporting system consisting essentially of a two-page telex report from the unit to the branch, a consolidated report from the branch to the Regional Office, and again a consolidated report from the Regional Office to the Head Office. All levels use the same two-page format, the only difference being the level of aggregation.

In addition, the MIS is closely integrated with internal control as well as external supervision and audit.¹⁴ Most importantly, the MIS forms the basis for staff incentives tied to performance. Therefore, the MIS has become BRI's primary tool for ensuring accountability (Patten/Rosengard 1991).

2.4.1.3 Comprehensive system of incentives

Incentives are a powerful device to guide the behavior of people in a certain direction. BRI has developed a number of positive incentives built into the system to motivate unit managers, staff and customers.

Incentives for the depositors:

- Differentiated interest rates encourage savers to increase their deposit balances to a level that entitles them to (higher) interest payments.
- Participation in a lottery with attractive prizes has turned out to be a popular incentive for maintaining and increasing deposit balances and, with increases, the number of lottery coupons.

Incentives for the borrowers:

- The most important incentive is the knowledge that a subsequent loan will be quickly available for an increased amount, provided payments are made on time (see section 2.4.2.3 for borrower classification system).
- There is also a prepaid incentive for prompt payment (IPTW) that is built into the monthly interest charge. KUPEDES borrowers initially pay an interest rate of 2% flat per month for working capital loans (0.5% in addition to the real interest charge). If all payments in a six-month period are made on time, the full amount of this incentive payment is returned to the customer. If payments are late, the prepaid incentive is retained by the unit as penalty charge. KUPEDES borrowers are required to open a savings account before loan disbursement. The IPTW is returned to the borrowers' savings account.

Incentives for unit managers and staff:

- A principal incentive for unit staff is a profit-linked bonus, based on the individual unit's performance (SIBK) according to the five criteria outlined above. 10% of a unit's annual profits are distributed to that unit's staff, in proportion to salaries. The bonus is paid twice a year based on a semi-annual performance evaluation. The individual staff may receive up to one and a half months salary.

Incentives for the institution, i.e. the unit:

¹⁴ Compare section 2.5.

- A crucial incentive for the units to actively engage in savings mobilization is the setting of a transfer or accounting price for obtaining liquidity from or depositing excess funds with the branches at a competitive level, i.e., at or above the cost of loanable funds from small savings deposits.
- To promote competition among units, the central office devised a system to recognize the top 20 performers of each region, who then compete for becoming the top 20 performers at the national level. This competition is based on the performance criteria outlined above. The winners receive prizes and personal recognition from top management for their performance.

By setting incentives and fine-tuning parameters accordingly, the system has become self-regulating and self-enforcing to a large extent, reducing the burden on managers and supervisors at higher levels considerably. Positive incentives are one side of the coin, built-in sanctions the other side. For example, low performance leads to low profits, and low profits together with low performance is personally felt by the managers and staff at payday.

2.4.2 Special management capabilities: Risk management

2.4.2.1 *Structure and risk exposure of assets*

As of December 1996, the total assets of the unit system amounted to US\$3.5 billion. KUPEDES loans comprised roughly half (47%) of the total assets, whereas the other half (48%) consisted of excess funds deposited in BRI branches. The remaining 5% of assets included cash, fixed and other assets.

The deposits in the BRI branch network carry little or no risk for the units in the sense that the units themselves do not have to engage in risk management. It is the users of the units' excess funds, the BRI branches, which have to ensure the prudent allocation of the funds and apply risk protection measures. This is enforced by the direct banking supervision of BI and others.

Hence, only half of the units' assets are exposed to risk, namely the KUPEDES loans extended by the BRI units themselves. Therefore, lending or default risk appears to be the major risk to be managed by the units. A sound strategy of lending risk management consists of various components, including the following:

- Requiring collateral;
- Reducing lending risks through effective borrower selection, screening, monitoring and enforcement;
- Adequate provisioning for doubtful loans; and
- Risk diversification.

2.4.2.2 *Collateral*

Loan collateral is the safest way to protect depositors. The KUPEDES borrower must provide collateral sufficient to cover the value of the loan. The requirement is usually met by land, although occasionally it is met by the pledging of buildings, motorcycles or other property. However, as in many countries, the legal conditions in Indonesia are highly unfavorable and it is difficult and costly for a bank to foreclose. In fact, legal steps are rarely pursued by unit managers in the event of delinquency. Therefore, collateral is primarily used as a screening device. The borrower's willingness and ability to pledge collateral is taken as an evidence of purpose, rather than as a source of repayment.

As many potential borrowers may not be able to provide sufficient collateral, this requirement may restrict the scope of KUPEDES lending. The volume of excess funds transferred from the unit to the branch network may - among other factors - be an indication of this limitation. BRI seems to be aware of this and has launched a pilot project on extending microloans below US\$210 without collateral, the so-called KUPEDES SKACIL (small-scale). The product is currently being tested in the provinces of Central Java and Bali.

2.4.2.3 Reduction of risks: Borrower selection, screening, monitoring and enforcement

The core element of BRI units' lending operations is the position of the Account Officer (AO). The AOs are responsible for the entire loan cycle of the customer, from selection and screening to monitoring and recovery. The AOs serve up to 400 borrowers and spend most of their time out in the field. This enables the AOs to gain intimate knowledge of the borrower's enterprise and character and fosters a rather personalized bank-customer relationship. This leaves little room for problems like adverse selection and moral hazard. Borrower screening and selection is done by the AOs. Larger loans, i.e. above US\$4,200, are usually re-checked by the unit chief.

For repeat borrowers, a classification system based on the client's loan repayment record is used to set the borrower's personal loan limit. The rating system outlined below serves as a guideline, but is not mechanically applied.

Table 2: Record-based borrower classification system

Rating	Criteria	Subsequent loan ceiling (over previous loan amount)
A	All payments made on time	Increase of 100%
B	Final payment on time, one or two late payments	Increase of 50%
C	Final payment on time, two or more late installments	Same amount
D	Final payment late, but paid within month of due date	Reduction by 50%
E	Final payment more than two months late	No new loan

Both KUPEDES working capital and investment capital loans are paid in equal installments, in most cases monthly. This greatly facilitates loan monitoring and provides a basis for early action.

BRI units apply a strict loan classification system including the following categories:

- Overdues of installments before final due date (black arrears);
- Unsound: Overdues up to three months after final due date (red arrears);
- Doubtful: 3-6 months after final due date;
- Bad debt: 6-12 months after final due date; and,
- Write-off: 15 months after final due date (black list).

For each category, internal regulations stipulate the action to be taken as well as the provision to be made for potential loan losses.

2.4.2.4 Adequate provisioning for doubtful loans

Based on the loan classification system above, adequate reserves for bad debt must be built up and maintained by the units. In principle, a reserve of 3% must be kept for all loans including sound loans. Unsound and doubtful loans require a provision of 50% of the loan amount and bad debt a provision of 100%.

The unit manager has to ensure that reserves are sufficient at all times. In 1996, arrears accounted for 3.6% of average loans outstanding in the entire UDES while the reserve for bad debt was maintained at 3.8%.

Due to built-in incentives, unit managers and staff have an imminent personal interest in keeping arrears and consequent provisions low as they cut into the unit's profit and ultimately reduce the profit share available for bonus payments.

2.4.2.5 Diversification of risks

KUPEDES was created as a flexible instrument of general rural credit taking into account the heterogeneity of economic activities and credit demand in rural areas. The land scarcity on the main islands of Java and Bali has forced villagers to seek various means of income other than agriculture. The units have been successful in diversifying their credit portfolios across all rural economic sectors. Furthermore, the exposure to high-risk sectors such as agriculture and industry has been limited to about 20% of the portfolio. Of the total loans outstanding at the end of 1996, 44% were for small trade, 18% for agriculture, only 2% for small industries and 33% for services and other purposes, including consumption. Hence, lending risks have been sufficiently diversified.

Furthermore, the maximum loan ceiling of US\$10,500 effectively prohibits a concentration of the loan portfolio. Against an average unit loan portfolio of US\$475,500 (December 1996), a single borrower can hold a maximum of 2%.

Nevertheless, the individual unit remains exposed to covariant risks due to the geographic limitation of its area of operation to one sub-district. Natural calamities such as droughts in one area may affect all sectors of the highly agriculturally-based local economy. While such a disaster would cause a severe drawback on an independent rural bank, the BRI units have the advantage of being an integral part of a wider network. Even if a considerable share of their portfolio were affected, the units' risk management is backed-up by the BRI branch and, ultimately, by the bank as a whole.

In an overall assessment, the long-term loss ratio of little more than 2% provides sufficient evidence that risk management in general and lending risk management in particular has been highly successful in the BRI unit system.

2.4.3 Special management capabilities: Liquidity management

2.4.3.1 Diversification of liquidity risks

BRI liabilities are highly diversified. 87% of the units' funds originate from 16 million small savings deposits. The total savings in the units has not fluctuated wildly as short term economic conditions have changed over the past few years. Rural savings have proven to be much more stable than time deposits and other savings instruments of large businesses

in the urban areas, including deposits of government corporations. Overall, liquidity risks are well diversified and kept at a minimum.

2.4.3.2 Liquidity reserves and cash management

A general regulation specifies that cash holdings at a single unit should be kept at a minimum of US\$210 and at a maximum of 4% of the total savings balance at all times. As autonomous entities, the units need freedom to manage their own cash holdings. Early in 1986, cash management rules were liberalized, so that each unit could keep enough cash on hand to cover its transactions and not have to turn its cash in periodically to the branch. Since the unit earns interest on idle cash deposited with the branch, its profit is affected by its ability to manage cash effectively.

Cash ceilings are determined by each unit in consultation with the manager of the BRI branch who knows the area and the local cash flows. The ceiling is reviewed every three months. On special occasions, the ceilings can be exceeded, e.g., when salaries of civil servants or the military are paid.

Cash transfers are organized by the BRI branch. In Java and Bali, most branches run a cash vehicle that serves the units according to a fixed schedule, at least once a week.

2.4.3.3 Access to BRI liquidity pool

A major advantage and a crucial success factor for BRI's savings mobilization program is the units' access to an almost unlimited pool of liquidity from the BRI branch network. In case of need, a unit can borrow from the branch at the prevailing transfer price, currently 15.5%, and vice versa, it can deposit excess funds at the same rate in the BRI branch office.

2.4.4 Lessons learned in management capabilities, especially risk and liquidity management

2.4.4.1 General management

The lessons learned may be summarized as follows:

- Human resource development has been a decisive factor. A major emphasis is on comprehensive staff training. Every unit staff participates in refresher and/or application training at least twice a year.
- The units are provided with clear objectives and performance criteria focusing on five major aspects. The performance criteria form the basis for the MIS, for the incentive system and for internal supervision.
- Simplicity of design and transparency of operations have facilitated the establishment of a well-functioning management information system (MIS). The essential components are sound bookkeeping and timely reporting to higher management levels. However, the MIS also enables effective self-monitoring at the unit level.
- The actors in the BRI unit system are guided by a system of well-conceived incentives tied to performance rather than by instructions and regulations. Financial and other incentives have been highly effective in motivating customers, both savers and borrowers, unit managers and staff in appropriate ways. Incentives have had a significant impact on motivating people at all levels.

2.4.4.2 Risk management

Sound risk management has contributed to the confidence depositors have in the BRI unit system. The units have adopted various strategies to reduce lending risks:

- In the first place, KUPEDES borrowers are required to provide collateral, a strong signal to depositors that the BRI units are serious about protecting their funds.
- Being limited to a small geographic area of operations, the units have accumulated local information that can be applied in prudent financial technologies for proper screening and selection of borrowers, for monitoring and enforcement.
- Early and adequate provisions for loan losses must be made by every individual unit.
- Furthermore, units have been able to sufficiently exploit their limited potential of (horizontal) risk diversification through general lending to all sectors of the rural economy - though within a small geographic segment of the market.
- Finally, the back-up by BRI as the mother institution as a last resort ensures nearly unlimited (vertical) diversification of risks.

2.4.4.3 Liquidity management

- The BRI units' experience has shown that, contrary to expectations, rural savings deposits are a relatively stable source of funds and do not fluctuate to the same extent as larger deposits from urban customers. Therefore, liquidity reserves can be maintained at a lower level.
- The cash ceiling is determined for each BRI unit individually by the unit chief in consultation with the BRI branch manager. Cash holdings are rather small at less than 4% of deposits.
- However, low cash reserves at the units, resulting in low liquidity costs, are made possible by the liquidity back-up provided by BRI branches. The access to a nearly unlimited pool of liquidity at any time has turned out to be a strong comparative advantage of the BRI units in their competition with independent rural banks.

2.5 Regulatory and supervisory framework

2.5.1 External regulation and supervision mechanisms

BRI is subject to the regulation and supervision of the Central Bank (Bank Indonesia). With the Banking Law No. 7 of 1992, Indonesia adopted international standards for the rating of the soundness of financial institutions. This included a stipulation on capital adequacy as proposed by the Bank for International Settlements (BIS). Furthermore, banks must adhere to a rigorous system of loan classification (sound, unsound, doubtful, bad debt) and to follow strict regulations on provisions for bad debt. A set of indicators based on the CAMEL system serves as the core instrument for monitoring and supervision of banks.

For a financial institution¹⁵ to be rated as sound in all categories, the following benchmarks must be achieved:¹⁶

- Capital (25%): The ratio of capital to risk-weighted assets (CAR) is at least 8%.

¹⁵ These benchmarks apply to general commercial banks; for rural banks (BPR) the minimum standards are somewhat softer.

¹⁶ The percentage figures in brackets denominate the weight with which the single aspect enters the overall rating.

- Assets (30%): The ratio of arrears to loans outstanding is not more than 2.85%. The reserve for bad debt is at least 81% of the arrears.
- Management (25%): Out of a list of 250 items on management and supervision, internal organization and procedures, accounting, etc., at least 201 items must be satisfied.
- Earnings (10%): Return on assets (ROA) is at least 1.2%. The ratio of expenditures to earnings is not more than 93.5%.
- Liquidity (10%): The ratio of loans to deposits (LDR) is not more than 109%. The ratio of call money to current assets is not more than 21%.

The regulations apply not only to BRI as a whole, but to all of its branches individually. Bank supervision is decentralized and is carried out by 30 BI regional offices throughout the country. Every branch is required to provide weekly, monthly and semi-annual reports to the local BI office. The reports include the operations of the branch itself as well as the consolidated statements of the units attached to the particular branch. Regular on-site inspections are conducted by BI officers once a year.

The annual audit of BRI is performed by the Financial and Development Supervisory Board, a state agency responsible for auditing of state and regional enterprises, including state financial institutions.

2.5.2 Internal regulation and supervision mechanisms

Internal regulation and supervision of the Unit Desas is of particular importance as they are not subject to external supervision by BI on an individual basis but rather as an aggregate of the respective BRI branch.

Effective internal control and supervision is based on two prerequisites. First, internal regulations that establish a set of clear objectives and performance criteria for the Unit Desas. Second, a management information and reporting system based on those criteria. Both of these elements are well developed in the BRI units (see paragraphs below).

BRI has a strong system of internal control that consists of three complementary components:

- Built-in control;
- Management control/supervision; and,
- Internal audit.

2.5.2.1 Built-in control

In the first place, the BRI unit is, to a large extent, governed by self-regulation. Each unit is a separate accounting and profit center based on sound accounting principles. Procedures are simple and standardized. Performance criteria are transparent and focus on few significant aspects, which facilitates self-monitoring by unit managers and staff. In addition, self-control is fostered by an effective system of incentives and sanctions (see paragraph below), which instills a high level of accountability and personal responsibility in unit personnel.

2.5.2.2 Management control/supervision

Unit Desas are supervised and controlled by the respective BRI branch. Although the responsibility for day-to-day operations, for making individual loan decisions, for fund

management, etc., is delegated to the unit chief, the branches retain the overall responsibility for their performance.

There is heavy emphasis on regular monitoring and supervision from the responsible branch. Every branch has a specialized section with several staff who exclusively guide and monitor the units. There is one full-time supervisor, a so-called Unit Business Manager (UBM), for every four units, and that supervisor spends about a day per week at each of his or her units. A strict limitation in the span of control ensures close and intensive supervision. The regulation applies not to the physical unit but to the account officer responsible for KUPEDES lending. As units expand their lending operations and a second account officer is employed, the supervision is accordingly re-arranged with one UBM monitoring four account officers.

The Unit Business Managers are supervised by the Unit Development Officer (UDO) who is the head of the Unit Business Section at the branch. The UDO reports directly to the branch manager. Depending on the number of units and account officers, there may be three to four or even more UBM in one branch.

An area of particular concern is the quality of the KUPEDES loan portfolio, which is closely monitored by the UBM. An internal regulation stipulates that if arrears in a particular unit reach 4.5%, immediate steps must be taken to reduce the arrears. If arrears exceed 5%, the lending authority of the unit chief is withdrawn and transferred to the UDO at the branch.

Needless to say, the effectiveness of management control and supervision crucially depends on a well-functioning management information system (MIS).

2.5.2.3 Internal audit

Since 1995, commercial banks are required by law to establish an internal audit unit (SKAI), which reports directly to the President Director. The internal audit of the BRI branches and the units is carried out by the internal audit teams located at the Regional Offices. Every branch, including its units, must be audited at least once a year, the latter on a sample basis.

2.5.3 Lessons learned in external and internal regulation and supervision mechanisms

The lessons learned may be summarized as follows:

- External regulation and bank supervision is conducted by the Central Bank in compliance with international standards. However, direct supervision only reaches the BRI branch level, which includes the units on an aggregate basis, not as individual institutions. Therefore, internal regulation and supervision of the BRI units is even more important.
- External supervision has created pressure for BRI to adopt similar standards for the regulation and supervision of the units. BRI has developed a system of internal control that includes strong elements of built-in and functional control. The latter includes supervision by the respective BRI branch and regular audits by the BRI Regional Offices.
- The treatment of the single unit as separate accounting and profit center permits close evaluation of results and responsibility for outcome. This has instilled accountability and established a basis for built-in self control.
- There is heavy emphasis on regular monitoring and supervision from the responsible branch. The span of control was kept small by allocating one full-time supervisor for every four units. This supervisor spends about one day per week at each of his or her units.

2.6 Cost analysis of savings mobilization

2.6.1 Scope and quality of accounting and cost analysis

A fundamental prerequisite for sound and proper cost accounting and analysis has been the treatment of the single unit as an autonomous financial entity. As mentioned earlier, the units are independent accounting and profit centers with each unit's balance sheet reflecting the true position.

The operational cost (administrative expenses) of the units can be broken down into four major categories with respective shares of total operational cost in 1996:

- Salaries and allowances: 45%;
- Office cost and other expenses: 33%;
- Loan loss provisions: 11%;
- Supervision costs: 12%.

The units pay not only for the direct costs incurred by them, such as salaries, which make up almost half of the operational cost, office expenses and loan loss provisions, but also for the indirect cost of supervision incurred at the level of the branches and the Regional Offices. Supervision costs accounted for 12% of the units' operational costs in 1996.

The units are linked to the BRI branch network through the transfer price mechanism. The transfer price is the interest rate on funds received from or deposited in a BRI branch. Hence, the supply of additional liquidity from the branch is treated as a loan on which the unit must pay interest. Vice versa, the units may deposit excess funds in an interest-bearing account in the branch. For both cases, BRI applies an unanimous transfer price or interest rate that is set at half a percentage point above the highest time deposit interest rate. The rate is thus automatically adjusted in line with market developments. At present, the transfer price is 15.5%.

95% of the units are net fund providers and maintain considerable deposit balances with the branches. As a result, more than a third of the units' interest income in 1996 originated from interest paid by the branches, while two thirds of interest income was generated from KUPEDES lending. For 1996, the average interest yield was 15.6% on branch deposits and 30.2% on loans (net of borrower incentives), resulting in a weighted interest yield on earning assets (branch deposits and loan combined) of 22.8%.¹⁷

Table 3: Income and cost structure of the BRI unit system
(as a percentage of average earning assets)

¹⁷ Interest income of 22.8% and other operational income of 0.3% add up to 23.1% of earning assets in 1996, the figure stated in table 3.

	1994	1995	1996	three-year average
1. Interest income (including other operational income)	20.3%	22.3%	23.1%	21.9%
2. Interest expenses	8.5%	9.7%	10.9%	9.7%
3. Spread (interest income – interest expenses)	11.8%	12.6%	12.2%	12.2%
4. Total operational costs:	6.8%	6.4%	6.5%	6.5%
(a) Salaries and allowances	2.8%	2.9%	2.9%	2.9%
(b) Office and other cost	2.1%	2.1%	2.1%	2.1%
(c) Provision for loan losses	1.2%	0.7%	0.7%	0.8%
(d) Supervision cost	0.7%	0.7%	0.8%	0.7%
5. Profit	5.0%	6.2%	5.7%	5.7%

Source: BRI Head office. 1996. *Laporan Bulanan BRI Unit Desa. Statistik*. December; author's calculations.

Note: Pre-paid incentives (IPTW) excluded from interest income and incentive payments excluded from interest expenses to reflect true position.

Over the past three years, the unit system has been highly profitable. The interest rate structure allows for a spread of 12.2% (three-year average) of which a little more than one half (6.5%) is required to break-even while the other half (5.7%) is available as net profit, with the staff bonus (profit share) already accounted for.

2.6.2 Methodologies to keep operation and transaction costs low for the financial institution

Any strategy aimed at reducing the cost of savings mobilization must consider at least five cost categories:

- Interest costs;
- Administrative costs;
- Liquidity costs;
- Minimum reserve costs; and,
- Opportunity costs.

With regard to interest cost, BRI has drawn conclusions from the basic lessons of transaction cost economics. While the nominal cost per unit, i.e., the administration of a savings account, is constant irrespective of the amount, the transaction costs in relative terms decline with increasing deposit balance. In other words, small accounts are relatively costlier to maintain than larger accounts. BRI has incorporated this fact into the interest rate structure of SIMPEDES, its major savings product. As outlined above, differentiated interest rates apply to four size categories, paying no interest on very small accounts and gradually increasing rates on larger accounts. Lower interest cost compensates, at least in part, for the higher administrative cost of small accounts. The bottom line, however, has always been determined by the principle of rewarding the savers with a positive return (except for very small accounts). In 1996, the average interest cost of the deposits was 12.4%.

Lowering the administrative cost of managing thousands and millions of small savings accounts has been a major concern that has induced a number of innovative cost-reducing

features. The simplicity in design, e.g., offering only one loan and one major savings product, and standardization of operations has held operational costs down. The BRI unit office is modest in its layout and most are rented, thus, contributing to low overhead costs. Cashiering and accounting functions are combined in the position of the teller, hence, the entire deposit transaction process is conducted by one person. The computerization of the units has had a decisive impact on productivity and cost efficiency. Staffing based on productivity parameters and a fine-tuning of staff workload has minimized staff costs per client and per transaction. Expenses on lottery contests and prizes represented a major cost item in the beginning. Cost analyses during the first SIMPEDES pilot project demonstrated that quarterly-held lotteries were prohibitively expensive and, as a consequence, were changed to semi-annual contests. With numbers and volumes of savings increasing, economies of scale have reduced the lottery costs to a minor item.

In its cost accounting, BRI does not differentiate according to activities (deposit mobilization, lending) or according to products. Hence, administrative costs related to deposit mobilization cannot be easily isolated from overall administrative costs, except provisions for loan losses, which are clearly lending-related. However, transaction cost analyses conducted in another context for two BRI branches and two rural banks have shown that, on average, one third of administrative expenses (including staff cost based on time allocation) can be allocated to deposit mobilization, and the balance to lending (Maurer 1993). Applying this parameter to the BRI unit system, administrative costs of savings mobilization account for 2.2%.

The third item, liquidity cost, stems from the fact that part of the deposits cannot be employed as earning assets but must rather be kept as idle cash. The maintenance of sufficient liquidity is a must for any institution engaged in deposit mobilization. This is particularly true for the SIMPEDES program, which allows unlimited withdrawals at any time. Liquidity cost represents the opportunity cost of cash holding. The BRI units' ready access to the liquidity pool of the branch network relieves them from having to maintain excessive cash reserves. Cash holdings are kept at a minimum level, reducing liquidity cost considerably. Assuming that the units hold an average of 3% of deposits as cash, the liquidity cost amounts to 0.5%.

Table 4: Cost of savings mobilization of the BRI unit system in 1996

Cost item	as % of deposit balance
1. Interest cost	12.4%
2. Administrative cost	2.2%
= Cost of funds	14.6%
3. Liquidity cost (cash holding 3% of deposits)	0.5%
= Cost of loanable funds I	15.1%
4. Cost of minimum reserve requirement (2% of deposits)	0.3%
= Cost of loanable funds II	15.4%
Alternative: cost of borrowing from branches	15.5%

Note: Funds = 100% of deposits, loanable funds I = 97%, loanable funds II = 95% of deposits.

Source: Author's calculations based on data from: BRI. 1996. *Laporan Bulanan BRI Unit Desa. Statistic*. December.

The fourth cost item, minimum reserve cost, is beyond the control of BRI and its units. The minimum reserve requirement is determined by Bank Indonesia and is mandatory for all banks. As a major element of the financial sector reform package of 1988, the minimum reserve requirement was set at 2%, which has set off, among other factors, an explosion of deposit mobilization throughout the banking industry in Indonesia. For the unit system, the minimum reserve cost accounted for only 0.3%. In early 1997, Bank Indonesia increased the minimum reserve requirement in two steps to 5%, which is required to be held as demand deposits with Bank Indonesia, carrying little or no interest.¹⁸ By freezing a larger share of the deposits, it has raised the cost of savings mobilization by half a percentage point for the BRI unit system.

The fifth cost item, opportunity cost, refers to relative cost of funds from different sources in general and the cost of savings mobilization vis-à-vis other sources in particular. Relative prices of various sources of funds determine the incentive structure. Therefore, the correct setting of relative prices is an essential prerequisite for savings mobilization.

BRI's transfer price policy has probably been the most crucial parameter for the success of SIMPEDES and the mobilization of small savings. The transfer price was set at a level equal to or slightly above the cost of funds for small savings deposits. Applying a "shadow price" to reflect the real cost of funds has provided a major incentive for small savings mobilization. Moreover, it has corrected a major flaw persisting in the rural finance systems in many countries, namely the price distortions created by the provision of cheap funds, often from donors, and the resulting increase in the relative (opportunity) cost of small savings mobilization.

Take the present situation: the units have the choice either to borrow from the branches at 15.5% or to venture into small savings mobilization. The latter carries a lower interest cost of 12.4% on average, but imposes considerable administrative costs. This leaves them with a margin of around 3% between the two options. The choice then effectively depends on cost efficiency. If the units are able to manage at a lower cost than 3%, they will opt for savings mobilization. The results clearly show that the units have opted for small savings. Taking into account all cost items, the cost of loanable funds generated from savings was slightly lower than the cost of borrowing from the branches as illustrated. This has effectively eliminated the opportunity cost of small savings mobilization.

The general conclusion from BRI's experience is that savings mobilization is a less costly option for rural financial institutions, provided that the price for alternative fund sources is set at a competitive, market-based level, thus creating a strong incentive for reducing administrative costs.

2.6.3 Methodologies to keep transaction costs low for savers

Physical proximity to the deposit institution is of utmost importance to the saver. BRI units can be found in almost every sub-district in Indonesia. The units are mostly located in the sub-district's major town where economic activity is concentrated. Shops, input suppliers, traders, high schools, health centers as well as local government offices are all concentrated in the sub-district towns (*Kota Kecamatan*). Many villagers come to town for various purposes and can easily pass by the BRI unit office for transactions. Nevertheless, there are still many people living in remote villages who may find it costly to travel to the sub-district town. The village service posts, operated by some BRI units, can help to bring

¹⁸ Earlier, the banks were actually permitted to hold the minimum reserve of 2% as cash on hand. The calculation of minimum reserve requirement cost applied in the table above assumes that reserves are deposited with Bank Indonesia as under the new regulation.

services closer to the customers. However, BRI does not seem to pursue expansion to the village level vigorously. At present, there are only about 350 village service points in the whole country.

Through the computerization of the units and the allocation of tellers at the front-office, the number and speed of transactions has increased significantly. This has reduced the customers' waiting time and resulted in better and faster service. In addition, the account officers who operate primarily in the field, have been granted the authority to accept deposits.

2.6.4 Lessons learned in the reduction of operating and transaction costs of the financial institution and the savers

The major lessons learned may be summarized as follows:

- The general lesson learned is that the mobilization of small savings is costly, but it is a viable and profitable option for a financial institution if the various cost elements are seriously addressed and incentives are set correctly.
- Taking into account the lessons of transaction cost economics, BRI has applied a differentiated interest rate structure for SIMPEDES by tying the level of deposit rates to savings account balances. Thus, lower interest costs compensate, at least in part, for the higher administrative costs of small accounts.
- Reducing the administrative cost associated with thousands of small accounts has been a major concern. A number of innovative features have contributed to lowering these costs, e.g., simplicity of design and standardization of operations, low overhead costs, increasing staff productivity, computerization, etc.
- The opportunity cost of cash holding, or liquidity cost, was minimized by prudent cash management. Above all, access to the BRI liquidity pool has significantly contributed to reducing liquidity costs.
- The framework conditions for savings mobilization have been extremely favorable as the minimum reserve requirement has been set at a low level of 2%,¹⁹ allowing 98% of deposits to be employed as productive assets. This has greatly reduced the costs associated with this regulation, which is beyond the control of BRI.
- Most importantly, however, and probably the most essential factor for the success of SIMPEDES and the mobilization of small savings, has been BRI's policy of the transfer price of funds from the branches to the units and vice versa. This artificial, yet market-based, accounting price was set at a level equal or slightly above the cost of funds for mobilizing small savings. This move has effectively eliminated the opportunity cost of small savings and has created a strong incentive for the units to engage in savings mobilization rather than borrowing from the branches.
- The transaction costs for savers have been limited primarily through the customers' physical proximity to the BRI units, which are located in the centers of the rural economy, the sub-district towns. However, there are still many customers living in remote areas and villages who may find it costly to travel to the nearest BRI unit. The village service posts operated by some units help to bring down costs but the number of these posts remains limited.

¹⁹ Only recently, the Central Bank has raised the minimum reserve requirements to 5%.

3 CONCLUSIONS

A little more than a decade of KUPEDES and SIMPEDES has made the BRI unit system one of the most successful rural financial institutions in the developing world, especially in the field of savings mobilization (Yaron 1992). Some of the features are certainly unique and relate to the specific context of rural Indonesia and/or to BRI as an institution, but there are many others that can be generalized and applied in other countries. The BRI experience has become a learning ground for policy makers and practitioners from institutions and countries around the world.²⁰

Given the richness and the variety of lessons to be learned from BRI, the observer may draw his or her personal conclusions depending on the individual perspective and context. Presented below are the important lessons learned in the words of two major actors, namely BRI itself and the World Bank, which has supported the BRI unit system with loans and technical assistance.

3.1 Lessons learned from the viewpoint of BRI²¹

- Demand-driven approaches to rural finance and banking offer dramatic opportunities for success. Money can be safely and profitably lent in small amounts in rural areas if instruments offered meet the borrowers' needs, and if the pricing, incentive and enforcement arrangements are appropriate. Sustainability of lending is the most important factor in controlling delinquencies, and the interest rate is not the principal concern of the borrower.
- There is a large demand for savings facilities in rural areas, so that the self-financing of rural lending is entirely possible. Safety and convenience rather than high interest rates are the main concerns of potential depositors.
- Simplicity, transparency and well-conceived incentives will motivate staff and customers in appropriate ways.
- Reasonably stable macro-economic and political conditions with a growing economy are extremely important to increasing the chances of success.

3.2 Lessons learned from the viewpoint of the World Bank

The Operations Evaluation Department of the World Bank²² distilled the following lessons from the BRI's experience:

- Success of rural credit programs is facilitated by sound macro-economic and sector performance.
- Government commitment and ownership are at the heart of a sound market-based credit program.
- A focus on objectives and simplicity of design are critical in credit programs geared to self-sufficiency.

²⁰ BRI is prepared to share its experience and has established an International Visitors Program for this purpose.

²¹ BRI Head Office, Rural Financial Improvement: BRI Experience, prepared by BRI Village Unit Division, undated, p. 8.

²² Operations Evaluation Department of the World Bank, KUPEDES: Indonesia's Model Small Credit Program, OED Précis, number 104, February 1996.

- Simplicity in design must be backed by careful attention to organizational detail and staff incentives.

3.3 Concluding assessment and critical issues

The success in small savings mobilization is rooted in BRI's ability to provide a well-conceived combination of what small savers want and need: safety, convenience, liquidity and positive yield. Directing the system with all the features and details listed in this paper towards these essential elements of demand has probably been a major key to success.

Another decisive factor has probably been the delicate balance of market segmentation and integration and a combination of the advantages of both while eliminating the disadvantages of either approach. On the one hand, the units were kept small and focused, highly decentralized, restricted to the sub-district as their area of operation and treated as autonomous financial entities. Thus, the units were able to exploit the advantages of local information and were successful in reducing such common problems as adverse selection and moral hazard. On the other hand, the units are part of the BRI network, which has provided a strong back-up in terms of risk diversification and liquidity. This combination has proven favorable for savings mobilization and has been a strong point in the BRI units' competitive position vis-à-vis other financial institutions.

The competitive advantage of BRI units is particularly felt by private rural banks (BPR) which have been established at the sub-district level after the financial sector reform package of 1988.²³ Most BPR are independent unit banks with no recourse to (vertical) risk diversification and with no access to a liquidity pool, exposing them to much higher lending and liquidity risks. BPRs are struggling to compete with the BRI units by offering higher returns on deposits²⁴ and better service, e.g., doorstep collection of savings. Both measures, of course, raise the BPR's operational cost, worsening their market position even further.

Three critical issues remain to be addressed:

One is the financial drain occurring within the BRI unit system. Since 1990, savings mobilization has exceeded KUPEDES lending, which has led to a considerable transfer of funds to the urban BRI branch network. At the end of 1996, more than half of the savings mobilized by the units were deposited in the branches. The financial crisis has widened the gap even further. Latest data from June 1998 indicate that two thirds (66%) of the deposits are channeled off to the BRI branches. Although the argument that excess funds mainly originate from urban BRI units cannot be refused due to lack of recent data,²⁵ but the argument does not seem plausible, given the magnitude of excess funds and that the majority of units are located in rural areas.²⁶ The other argument, that the excess funds from the units are channeled back into rural areas by the branches in the form of program loans, such as KUT, is equally not convincing as the major part of these loans are refinanced by Bank Indonesia. The future challenge rather lies in the expansion of KUPEDES lending.

²³ A total of 1,342 new BPR had been established by October 1996.

²⁴ The deposit rates of BPR are frequently 3-5 percentage points above SIMPEDES rates.

²⁵ Robinson (1992) merely shows on the basis of 1990 data (the second year of the gap) that urban units have higher excess funds than rural units.

²⁶ As of December 1990, 2,418 units, or 80% of all the 3,040 at that time, were located in rural areas (Robinson 1992). It can be safely assumed that this ratio has not fundamentally changed.

The requirement of hard collateral may impose a barrier to expansion, especially for microenterprises. This requirement may be relaxed and handled more flexibly, without sacrificing the principles of prudent banking. The results of the ongoing pilot projects of KUPEDES SKACIL may provide important hints in this direction.

Another critical point relates to the transfer of profits from the unit system to the mother institution. Within less than ten years, the BRI unit system has been converted from a loss-making network requiring annual subsidies to a highly profitable banking system. Almost half of the interest spread of 12% can be retained as profit. The profitability of the unit system is not to be questioned, in general, the critical issue rather relates to the use of these profits. The issue addresses BRI as a whole and specifically the operations and performance of its branches. As pointed out earlier, the entire profit of BRI is effectively generated by the unit system and, in addition to that, a considerable share of the units' profit is supposedly needed to cover losses in other parts of the bank's network, in particular the branches.

Profitability of the unit system is one thing, and without doubt necessary for a viable financial institution, but imposing the cost of the obvious low performance of BRI's urban based branch network to rural customers is another thing. This may be tolerable in the short-run, but must be seriously questioned in the long-run.²⁷ Cross-subsidization, as currently practiced, only covers the root causes and acts as a disincentive for good performance and efficiency. It appears that much can be still learned from the success of the BRI unit system, even within BRI itself.

The final critical issue relates to the severe financial and economic crisis that has hit the country since late 1997. Years of development are at risk, for the country in general and the Unit Desa in particular. Although the Unit Desa have withstood the first year of the crisis quite well, more problems and challenges are likely to come. Government ownership of the BRI Unit Desa and the associated label as "safe haven" for depositors have been crucial factors amid the general decline of public confidence, especially towards private banks. However, these factors alone must not be regarded as a guarantee for future success and sustainability. The crisis has strengthened the Unit Desa vis-a-vis the private rural banks and, for the time being, stifled the slowly emerging competition in the rural financial markets of Indonesia. However, the Unit Desa's exposure to competition is a necessary prerequisite not only for addressing the two critical issues mentioned beforehand but also as a powerful incentive for maintaining and improving the quality of the financial services provided and the efficiency of the Unit Desa operations.

²⁷ This situation has prevailed for the past four years.

4 REFERENCES

- Bank Indonesia, Report for the Financial Year 1995/1996, Jakarta 1996*
- Bank Rakyat Indonesia (BRI), Annual Reports, Jakarta 1994, 1995.*
- BRI Head Office, Rural Financial Improvement: BRI Experience, Prepared by BRI Village Unit Division (undated).*
- BRI Head Office, Laporan Bulanan BRI Unit Desa, Statistic, December 1996.*
- Cole, D.C. and B.F. Slade, Indonesia's History of Finance, in: The Jakarta Post, 19 April 1997.*
- Maurer, K., Transaction Costs and Interest Margins at Banks and LPSM, Study report prepared for GTZ and Bank Indonesia, Jakarta 1993.*
- McGuire, P.B. and J.D. Conroy, Effects on Microfinance of the 1997-1998 Asian Financial Crisis, Paper presented to the Second Annual Seminar on New Development Finance, 21-25 September 1998, Frankfurt 1998.*
- Mosley, P., Indonesia. BKK, KURK and the BRI Unit Desa Institutions, in: D. Hulme and P. Mosley (eds), Finance against Poverty, Volume 2, London and New York 1996.*
- Robinson, M., Rural Financial Intermediation: Lessons from Indonesia, Part One: The Bank Rakyat Indonesia: Rural Banking 1970-91, Development Discussion Paper 434, Cambridge, MA: Harvard Institute for International Development 1992.*
- Robinson, M., Savings Mobilization and Microenterprise Finance: The Indonesian Experience, in: M. Otero and E. Rhyne (eds), The New World of Microenterprise Finance, West Hartford: Kumarian 1994.*
- Patten, R.H. and J.K. Rosengard, Progress with Profits - The Development of Rural Banking in Indonesia, San Francisco, International Center for Economic Growth 1991.*
- Reille, X. and D. Gallmann, The Indonesian People's Credit Banks (BPRs) and the Financial Crisis, Paper presented to the Second Annual Seminar on New Development Finance, 21-25 September 1998, Frankfurt 1998.*
- Snodgrass, D.R. and R.H. Patten, Reform of Rural Credit in Indonesia: Inducing Bureaucracies to Behave Competitively, in: Perkins and Roemer (eds), Reforming Economic Systems in Developing Countries, Cambridge, MA: Harvard Institute for International Development 1989.*
- World Bank, KUPEDES: Indonesia's Model Small Credit Program, Operations Evaluation Department, OED Précis, Number 104, February 1996.*
- Yaron, J., Successful Rural Financial Institutions. World Bank Discussion Paper 150. Washington, D.C. 1992.*

5 ANNEXES

5.1 Annex 1: Macroeconomic, financial and social data

	1992	1993	1994	1995	1996
Macroeconomic data:					
GDP (Rupiah billion)	259,919	302,018	379,212	445,401	518,359
GDP (US\$ billion)	126.1	143.1	172.4	193.0	217.5
GDP/capita (US\$)	674	763	904	996	1,112
Sectoral distribution of GDP:					
• Agriculture/GDP (%)	19.5	17.9	17.4	17.2	n.a.
• Commercial sector/GDP (%)	13.7	13.5	13.0	13.0	n.a.
• Industry/GDP (%)	33.3	32.3	32.3	32.8	n.a.
• Services/GDP (%)	26.8	29.0	28.9	28.3	n.a.
• Other/GDP (%)	6.7	7.3	8.4	8.7	n.a.
Financial data:					
Ann. inflation rate (consumer price) (%)	4.9	9.8	9.2	8.6	6.0
Exchange rate (Rupiah/US dollar)	2,062	2,110	2,200	2,308	2,383
Money broadly defined/GDP (M ²) (%)	45.8	48.1	49.0	50.0	53.7
Forex deposits/total deposits in bank sector	17.8	16.7	16.8	16.1	16.2
Gross savings rate (% GDP)	n.a.	n.a.	n.a.	n.a.	30.1
Minimum reserve rate (%)	2	2	2	2	5
Av. nom. deposit rate (commercial banks)					
Savings accounts					
Time deposits					
• 1 month (%)	18.3	13.4	12.4	16.7	16.9
• 3 months (%)	19.5	14.5	12.6	16.8	17.4
• 6 months (%)	0.2	15.1	12.4	15.8	17.0
• 12 months (%)	21.1	16.3	13.0	15.0	16.5
• 24 months (%)	20.6	18.3	15.0	14.5	15.9
Av. nom. lending rate (commercial banks)					
Working capital loans (%)	24.1	20.5	17.8	18.9	19.2
Investment loans (%)	19.2	17.1	15.0	15.8	16.4
Social data					
Population (millions)	187.1	187.6	190.7	193.8	195.6
Population/km ²	97	98	99	101	102

5.2 Annex 2: Institutional data

	Dec 1994	Dec 1995	Dec 1996
General information:			
No. of branches (which supervise units)	320	320	320
No. of units (BUD system)	3,388	3,512	3,595
No. of village service posts	550	423	
No. of employees (BUD system only)	22,346	23,141	23,218
Balance sheet structure:			
Assets (US\$):	2,707,766,364	3,036,061,958	3,505,484,683
• Cash	8,322,273	10,347,487	13,545,531
• Financial assets (deposits with branches)	1,543,198,182	1,586,189,341	1,694,998,741
• Outstanding loans (incl. RBD)	1,065,895,000	1,329,656,412	1,644,097,776
• Equity investments	0	0	0
Liabilities (US\$):	2,587,090,909	2,861,628,683	3,328,028,955
• Amounts owed to private customers (deposits)	2,378,110,455	2,606,474,437	2,975,949,224
• Amounts owed to private financial institutions	0	0	0
• Amounts owed to BRI branches	78,261,818	107,307,192	153,293,747
• Other liabilities	130,718,636	147,847,054	198,785,984
Capital/equity (US\$):	0	0	0
• Profit current year	120,675,909	174,432,842	177,580,781
Loan portfolio:			
No. of outstanding loans	2,053,919	2,263,767	2,488,135
Vol. of outstanding loans (US\$)	1,120,441,280	1,384,203,945	1,713,293,214
Av. loan size outstanding (US\$)	546	611	689
No. of loans disbursed during the year	1,664,751	1,762,041	1,899,068
Vol. of loans disbursed during the year (US\$)	1,324,045,455	1,578,379,549	1,918,548,049
Av. loan size disbursed (US\$)	795	896	1,010
% of borrowers who have sav. acc./time dep.	100	100	100
Nominal lending rate:			
• Working capital loans (%)	33.2	33.2	33.2
• Investment loans (%)	22.2	22.2	22.2
Savings facilities:			
No. of savings accounts	12,928,781	14,334,986	15,979,848
Vol. of savings accounts (US\$)	2,129,698,182	2,286,758,232	2,599,685,690
Av. size of savings deposit (US\$)	165	160	163
No. of time deposits:	83,271	94,690	108,748
Vol. of time deposits (US\$)	191,837,273	264,104,419	325,210,239
Av. size of time deposits (US\$)	2,304	2,789	2,990
Deposit loan ratio (value of savings as % of loans outstanding end of year)	212.8	188.5	174.0
Nominal deposit rate (savings acc.) (%)			10-14.5

	Dec 1994	Dec 1995	Dec 1996
Nominal deposit rate (time deposits) (%)			14-15
No. of customers with sav. acc./time deposit ²⁸	n.a.	n.a.	n.a.
No. of opened sav. acc./time dep. during the year	n.a.	n.a.	n.a.
No. of closed sav. Acc./time dep. during the year	n.a.	n.a.	n.a.
No. of deposit transactions during the year	n.a.	n.a.	n.a.
No. of withdrawals during the year	n.a.	n.a.	n.a.

5.3 Annex 3: Performance indicators

	1994	1995	1996
Operational efficiency:			
1. Av. ann. value of savings acc./av. ann. no. of staff (US\$)	98,283	109,424	120,922
2. Av. ann. no. of savings acc./av. ann. no. of staff	554	619	673
3. No. of loans disbursed/av. ann. no. of staff	75.3	79.1	83.5
4. Value of loans disbursed/av. ann. no. of staff (US\$)	59,912	70,881	84,356
5. Av. ann. no. of outstanding loans/av. ann. no. of staff	89	97	104
6. Av. ann. Value of outstanding loans/av. ann. no. of staff (US\$)	50,699	62,161	75,331
Liquidity:			
7. Av. Ann. liquid assets/av. ann. assets (%)	57.7	54.8	50.5
8. Av. Ann. Liquid assets/short term liabilities (checking + savings accounts)	71.3	69.5	66.2
Risk assets:			
9. Capital adequacy ratio (av. ann. adjusted capital/av. ann. risk weighted assets)	not applicable to Unit System		
10. Av. Ann. arrears/av. ann. outstanding loans (%)	5.3	3.9	3.6
11. Av. Ann. capital/av. ann. arrears	not applicable to Unit System		
12. Ann. provisions for loan losses/av. ann. outstanding loans (%)	5.0	4.2	3.8
Quality of financial intermediation:			
13. Net interest margin ([interest income - interest expenses]/av. ann. assets) (%)	11.0	12.1	11.6
14. Other operating income to total assets (other operating income)	0.6	0.3	0.3
15. Spread (net interest margin + other operating income margin) (%)	11.6	12.4	11.9
16. Administrative costs/av. ann. assets (%)	5.5	5.5	5.7
17. Provisions for loan losses/av. ann. assets (%)	1.2	0.6	0.7
18. Net utility margin (spread - [adm. costs + loan provision costs]/av. ann. assets) (%)	4.9	6.2	5.5

²⁸ The number of customers is not available, only the number of accounts.

	1994	1995	1996
19. Interest income from lending/av. ann. outstanding loans (%)	42.5	42.1	39.9
20. Interest expenses/av. ann. outstanding loans (%)	30.6	32.2	32.0
21. Interest rate spread (19.-20.) (%)	11.9	9.9	7.9
19a. Interest income/av. earning assets (%)	23.9	26.5	27.5
20a. Interest expenses/av. earning assets (%)	12.8	14.2	15.6
21a. Interest rate spread (25a.-26a.) (%)	11.1	12.4	11.9
16a. Administrative costs/av. earning assets (%)	5.6	5.6	5.8
17a. Provision for loan losses/av. earning assets (%)	1.2	0.7	0.7
18a. Profit/av. earning assets (%)	4.4	6.1	5.3
Profitability:			
22. Return on assets (net income before tax/av. ann. assets) (%)	4.9	6.2	5.5
23. Return on equity (net income before tax/av. ann. capital)	not applicable to Unit System		