Occasional Papers No 2

THE INFORMAL FINANCIAL SECTOR IN DEVELOPING COUNTRIES ANALYSIS, EVIDENCE, AND POLICY IMPLICATIONS

Anand G Chandavarkar

The South East Asian Central Banks (SEACEN)
Research and Training Centre
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FOREWORD

Since 1977, The SEACEN Centre has been organising seminars and meetings to discuss current issues affecting the central banks and the economies of the eight countries represented in the SEACEN grouping. Over the years, SEACEN seminars and meetings have covered a wide range of topics to include agricultural financing and credit, interest rates, fiscal disequilibrium, international debt crisis, offshore banking, personnel development, financial innovations and off-balance sheet transactions.

In all these fora, the Centre invited resource persons who are acknowledged experts and authorities in their fields. The resource persons do not only present a paper but also lead the discussions of the various facets of the issues on hand as well as exchange experiences with the participants.

The proceedings of seminars and meetings are summarised by the Centre in a report form which is circulated to a limited audience. On some occasions, the resource persons give the Centre permission to reprint and circulate to the general public the papers they had presented. Thus this *Occasional Papers* serves as the vehicle in making available to a larger audience the papers presented by the resource persons.

The present article, **"The Informal Financial Sector in Developing Countries: Analysis, Evidence and Policy Implications"**, is a revised version of the paper prepared by Anand G. Chandavarkar at the SEACEN Seminar on Unorganized Money Markets held at Yogyakarta, Indonesia from 20 to 22 November 1985. Mr. Chandavarkar is currently an advisor in the Treasurer's Department of the International Monetary Fund (IMF). He was formerly a director in the Reserve Bank of India and economic advisor to the Bank of Libya. He has headed several IMF missions to Asian countries and is the author of numerous articles in professional economic journals and the pamphlet on *"The International Monetary Fund: Its Financial Organization and Activities"*.

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THE INFORMAL FINANCIAL SECTOR IN DEVELOPING COUNTRIES: ANALYSIS, EVIDENCE, AND POLICY IMPLICATIONS*

Anand G. Chandavarkar

I. Introduction

"...such island of conscious power is an ocean of unconscious coopera-tion" **Sir Dennis Robertson**

The bulk of the literature on this subject to date has been micro-economic and sectoral and has focussed largely either on the informal urban sector and its implications for employment policy, or else on rural credit and rural financial markets.[1] There has been no integrated macroeconomic analysis of the rationale and characteristics of the informal financial sector in developing countries and its policy implications, in particular how its activities relate to central banking controls and policies and to financial disintermediation. This paper therefore attempts to develop a framework for the macroeconomic analysis of the informal financial sector in developing countries in the light of the available empirical evidence and appraises its implications for monetary policy and financial intermediation.

The term *informal financial sector* as used in this paper (interchangeably with informal finance or informal credit markets) covers all legal financial activities outside the orbit of institutional and officially regulated finance. It therefore excludes the so-called underground or parallel economy from its purview. As a residual sector, it is necessarily heterogenous since it covers the lending and borrowing transactions of very varied types of individuals and intermediaries, such as professional and non-professional money lenders, private finance firms, indigenous bankers, rotating savings and credit associations (ROSCAs), pawnshops, traders, landlords, and households. Consequently, it is

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* A revised version of the resource paper prepared at the invitation of the *SEACEN (South East Asian Central Banks) Seminar on Unorganized Money Markets* held at *Yogyakarta, Indonesia, 20—22 November 1985.*

[1] The term informal sector was evidently first used by Keith Hart (1973). Cf. John Weeks (1975, 1978), Sethuraman (1976), Von Pischke, Dale Adams, and Gordon Donald (Editors), 1983.

difficult to give a logically clearcut and comprehensive definition of the sector. In fact it is often better identified by its basic characteristics such as ease of entry and exit, freedom from official regulation, multiple-interest relationships between transactors, smallscale operations, and above all, the informality of transactions, which constitutes its primary economic rationale and also confers on it comparative economic advantages over the formal financial sector. The term "informal sector" is consequently more logical and descriptive than either "unorganized" because this sector, if anything, is also highly organized, or the term "non-institutional" since institutions do operate in this sector even though they may not be joint-stock firms. The informal/formal classification is also analytically more satisfactory since it cuts across the locational and sectoral bias of the conventional dualisms of core/periphery, urban/rural, modern/traditional, market/subsistence sectors. Nevertheless, these various sets of dichotomies are relevant in different contexts. For instance, "the watershed between traditional and modern society is exactly this distinction between single-interest and multiple-interest relationship" (Bailey, 1966) which reflects one of the basic economic characteristics of the informal financial sector, namely, the interlocking of credit, commodity, and factor markets (Bardhan, 1980). Similarly, the urban/rural dichotomy is relevant for assessing the phenomenon of urban bias of the financial system (Chandavarkar, 1985) and the regional aspects of financial intermediation even as the market/subsistence dualism is pertinent for analysis of monetization (Chandavarkar, 1977). Likewise, formal finance is a part of the core, or centre, of the economy, whereas informal finance is a part of the periphery. All these dichotomies could be regarded as a manifestation of financial dualism (Hla Myint, 1973) which in turn is a refinement of the more generic and historically older concept of economic dualism of developing countries (J.H. Boeke, 1942).[1] Given the links of the informal financial sector with the formal sector it would be more accurate to talk of the fragmentation of the informal financial sector at the distributive end, akin to the fragmentation of agricultural land, rather than financial dualism as an aggregate of discrete financial enclaves. But the concept of financial dualism, irrespective of the specific conceptual dichotomy used, has to be appropriately qualified because finance is highly fungible and the informal financial sector is part of a continuum with the formal financial sector. More generally, informal

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[1] The concept of dual economy is traceable to Boeke's doctoral disseration (1910) submitted to the University of Leiden (Holland) which was subseqently developed in his publications on the Netherland's Indies Economy (1942).

finance is an apt example of a dialectical concept (i.e., one surrounded by a penumbra within which it overlaps with opposites) as against an arithmomorphic (i.e., discretely distinct) concept (Georgescu-Roegen, 1966). The organization and behavior of the informal financial sector, which is characterized by the virtual absence of financial repression, also exemplify the relevance of several paradigms like, the economic theory of clubs, contestability of markets, "lemons" principle model, interlinked customer markets, Goodhart's Law, and the institutionalist theory of interest rates formation.

II. Composition of the Informal Financial Sector

Notwithstanding its heterogeneity as a residual sector, the informal financial sector can be broadly classified in terms of a typology based on the ownership pattern of the constituent entities, namely, proprietory and mutual entities, and fringe banking firms.

The proprietory entities are those whose ownership is vested in individuals or family businesses and comprise moneylenders, private bankers, private pawnshops and pawnbrokers. Money lenders operate largely with their own capital, do not usually accept deposits and generally combine moneylending (through book entries) with the functions of landlords, merchants, and marketing middlemen. Nonprofessional money lenders including relatives, friends, and neighbours are predominant in the South East Asian countries (Table 1). Lending and repayment may be wholly in cash or kind, or else may involve loans in money which are repaid in commodities (rice or borrowers products) or specified man-hours of labor (e.g., the *ijon* system in Indonesia). Available estimates suggest that nonmonetized credit is still significant in South East Asia being of the order of about 24 percent of total rural credit in Malaysia (Wells, 1980) and about 37 percent in the Philippines (Inter-agency Committee, 1972).

Private bankers too largely use their own capital in lending operations but supplement it by borrowings from the formal sector and accept deposits on a limited scale. Their lending operations are through book entries or short-term credit instruments (e.g., postdated checks, indigenous bills of exchange (sight and usance), promissory notes, truck receipts, travel vouchers, etc.). These intermediaries (like the *multanis*, *shroffs*, or *chettiars*) are usually based on ethnic family groups and operate largely in urban areas in India and South East Asia.[1] India and

[1] For an authoritative account, see *Report of the Banking Commission*, Government of India, 1972.

Table 1

SOURCES OF NON-INSTITUTIONAL RURAL CREDIT IN SELECTED SEACEN COUNTRIES

(Percentage share of total non-institutional rural credit)

	Thailand[1] 1972/73	Sri Lanka[2] 1969	Philippines[3] 1971/72	Nepal[4] 1969/70	Malaysia[5] 1979
Professional moneylenders	8.0	14.7	3.1	2.1	3.3
Non-professional moneylenders	42.5	45.7	95.9	64.2	70.0
Friends and relatives	45.1	34.4	1.0	32.5	10.0
Others	4.4	5.2	—	1.2	16.7
Total	100.0	100.0	100.0	100.0	100.0

1 Bank of Thailand, *Task Force on Agricultural Credit Development*

2 Central Bank of Ceylon, *Survey of Rural Credit and Indebtedness*, 1969

3 *Philippine National Survey*, 1971/72

4 *Agricultural Credit Survey*, Nepal, 1971

5 R.J.G. Wells, *The Informal Rural Credit Market in Peninsular Malaysia*, 1980

Korea have sizeable informal urban credit markets.[1] The informal market in India provides funds at rates 2—4 percent higher than in the formal market for purposes which banks do not finance sufficiently (e.g., wholesale trade), or which require more speedy finance than banks can provide (e.g., exports); and for those borrowers who find it difficult to produce acceptable collateral (e.g., restaurant owners, film financers, and building contractors, etc.). By and large, lenders in the urban credit market are reported to be more concerned with the overall credit standing of their borrowers rather than the specific project for which credit is obtained. They are said to lend on the basis of cash flows, while maintaining some target relationship between the total borrowing and the net worth of the borrower, and also limit their exposure by distributing tranches of loans to different brokers, an interesting variant of the practice of syndication of loans in the formal sector. The most common instruments of borrowing are demand notes which do not require revenue

1 See Timberg and Aiyer (1983, 1984); Cole and Park (1983).

or judicial stamps unlike the term bills. The bad debt experience of these lenders in India is said to be roughly comparable to those reported for similar lending to smallscale enterprises by banks.

The other important identifiable proprietory group of lenders are private pawnshops in South East Asia, run mainly by private family businesses and licensed by government under appropriate legislation like the Pawnbrokers Act 1972 in Malaysia and the Pawnshop Acts BF 2505 (1962) and BE 2517 (1974) in Thailand. These pawnshops customarily lend small amounts for consumption purposes and occasionally for business purposes against the collateral of portable household effects which are not usually accepted by commercial banks. The amount lent depends on the appraised value of pledged collateral and the rates of interest are subject to legal ceilings (2—3 percent per month in Malaysia). For instance, in Thailand the pawnshops, which operate under an annually renewable license, normally lend up to 80—90 percent of the appraised value of gold and jewellery; diamonds up to 60—80 percent; electrical goods around 50 percent. The typical interest rate schedules range from 1.25 percent per month (2,001—10,000 baht) to 2 percent per month (up to 2,000 baht) (Skully, 1982). The Federal government pawnshops (14 in 1981) operate mainly within the Bangkok metropolitan area, whereas the municipal pawnshops operate only within their respective jurisdications. The Federal and municipal pawnshops lend at rates competitive with those of private pawnshops, which range from monthly rates of 1.25 percent (up to 500 baht), 1.50 percent (501—999 baht); 2 percent (2,000 baht); and 1.25 percent (over 2,000 baht).

Although in Indonesia the Government has a legal monopoly of pawnbroking and government pawnshops are not strictly a part of the informal sector, Indonesian experience is instructive for policy purposes. The growth of government pawnbroking business, despite having far fewer offices than banks, has been impressive since 1975 (Table 2). Loans outstanding increased at an average rate of around 32 percent per annum during 1978—81, with a redemption rate of almost 100 percent. (Unredeemed pawns are auctioned without delay.)

According to one assessment the government pawnshop service in Indonesia has been more effective in providing the poor with access to institutional credit than some of the programmes administered by State banks.[1]

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[1] "These programmes are plagued by bad debt problems, which are exacerbated by the extreme difficulties faced in liquidating assets pledged as security. This process is so time consuming and costly that it is undertaken with great reluctance. The banks are forced to respond by being much more selective when deciding upon loan applications than the pawnshop service... however, lending activities which require physical assets to be kept in the possession of the lender are not feasible except for very small loans." (Michael Skully, 1982).

Table 2

INDONESIA: PAWNSHOP ACTIVITY

(Figures in Rp billion)

Particulars	1975	1976	1977	1978	1979	1980	1981
Number of offices	441	441	441	446	448	450	463
Loans extended	31	38	46	59	90	110	156
Redemptions	29	35	44	56	83	103	144
Loans outstanding	8	11	13	16	23	30	42

Source: Michael Skully, 1982

The mutual units in the informal sector are typically the traditional rotating savings and credit associations (ROSCAS) which have long historical origins in Africa, Asia and the Caribbean (Tables 3 and 4). They are usually organized among socially cohesive groups on the principle of rotating access of each member to a continually reconstituted capital fund based on fixed contributions from each member and/or distribution at fixed intervals and as a whole to each member in turn by lot, agreement, or bidding (auctions).[1] The auction system is more popular in urban areas of Asia than in Africa where it is virtually non-existent. The basic principle of a ROSCA is that of an

[1] The auction system operates typically, as follows: "... if 30 participants, each contribute 200 currency units per month, there will be a fund of 6,000 currency units "for sale" each month. A member with an urgent credit need may start the auction at 300 currency units. With this bid he agrees to satisfy himself with a fund of 5,700 currency units while the remaining 300 currency units would be divided among the other 29 members as a dividend. Other members may, however, come up with higher bids before the auction is completed and the member with the highest bid takes the fund. The auction system introduces the interest rate element insofar as members with an urgent credit need pay a quasi-interest rate for the privilege of getting the fund at a time when they need it... Savers with no urgent need for funds simply wait for one of the last few funds and receive a reward each time a dividend is distributed. In practice, however, the organizer will aim at a composition of members that keeps the competitive bidding at a reasonable level." (Holst, 1985).

installment system for deposits and loans designed to pool small savings. Generally, the holder of the first position in a sequence ROSCA, who is usually the organizer, is a pure borrower and the last a pure saver. As a saver-depositor, the longer the duration of the loan (i.e., the earlier his position in the sequence) the higher the rate of interest to be paid. However, interest rate calculations are not always explicit or rational.

Table 3

ROTATING SAVINGS AND LOAN ASSOCIATIONS IN AFRICA

Country	Local Name	Remarks
Liberia	Esusu	
Gambia	Osusu	
Sierra Leone	Asusu	
Senegal	Tontine	
Ivory Coast	Diaou moni, wari moni	
Ghana	Nanemei akpee	Fund does not rotate
Benin	Ndjonu, tontine	Some groups have both a rotating and a non-rotating fund
Nigeria	Esusu, isusu, dashi, adashi, oha, bam	
Niger	Asusu	
Cameroon	Njangim djanggi, tontine, credit rings	
Zaire	Ikelemba, kitemo, osassa	
Ethiopia	Ekub, ikub	
Uganda	Chilemba	
Zambia	Chilemba	
Rhodesia	Chilemba	

Source: Adapted from Marion P. Miracle, Diane S. Miracle and Lauri Cohen, "Informal Saving Mobilization in Africa." *Economic Development and Cultural Change*, July 1980, p. 705.

Table 4

ROTATING SAVINGS AND CREDIT ASSOCIATIONS IN SELECTED ASIAN COUNTRIES

Country	Local name
India	Chit funds kuries, etc.
Indonesia	Arisan
Korea	Mujin Kye
Malaysia	Tontine Hui[1] Kuthu[2]
Philippines	Paluwagan
Singapore	Tontine Hui[1] Kuthu[2]
Sri Lanka	Cheetu[2]
Thailand	Pia Huey[1]

1 Hui or Huey is a generic term for ROSCA in Chinese. Some of the Caribbean countries have similar associations like the partner system in Jamaica and the susu in Trinidad.

2 No interest element

In practice, ROSCAS show considerable flexibility in resolving conflicts of interest between the early recipients' preference for unsecured credit and the concerns of late recipients for the safety of their savings. This is achieved through various devices such as contributions in kind or increasing contributions over the cycle. Potential borrowers can take more than one share, or participate in more than one association at the same time, which provide for variable contributions (e.g., as in the *djanggi* in Cameroon). By joining a ROSCA with a cycle of specific duration and a specific contribution members can opt for a payment-repayment schedule suited to their individual cash flow pattern. To cope with a situation in which all members have an urgent credit demand at the same time, members may form a fixed fund association

in which each participant deposits savings at regular intervals and can withdraw at the agreed time. Unused funds may be deposited in a formal financial institution. ROSCAs provide unsecured loans, although there are exceptions as, for instance, the chit funds in India which insist on securities, promissory notes, or co-signers to ensure that early borrowers continue their contributions. The uses of funds by ROSCAs in Africa show a varied combination of production and consumption credit (Table 5), whereas rural credit in the SEACEN countries is more for production (Table 6). A sample survey of 15 countries in the 1970s estimated that about one third of non-institutional credit was for consumption and about 20 percent for agricultural investment (Tun Wai, 1980).

Thus, ROSCAS are like miniature credit unions based on the 'mutuality' principle, since all gains accrue to participants. They are "a device by means of which traditionalistic forms of social relationships are mobilized so as to fulfil nontraditionalistic economic functions, and which has grown within peasant social structure to harmonize economic patterns with commercial ones and to act as a bridge between peasant and trader attitudes toward money and its uses" (Geertz, 1962). They are apt examples of an intermediate financial technology and the 'Economic Theory of Clubs', i.e., of voluntary economic entities which are intermediate between the purely private good and the purely public good.[1] Surprisingly, the economic theory of clubs has not yet been extended to a rigorous analysis of voluntary savings and loans clubs despite the impressive developments in the analytical framework since Buchanan's pioneering work (Sandler and Tschirhart, 1980).

The proprietary and mutual units typify the role of the informal sector as an autonomous sector which historically antedates the

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1 "... A general theory of clubs, or consumption or ownership-membership arrangements... allows us to move one step forward in closing the awesome Samuelson gap between the purely private and the purely public goods. ...The central question in a theory of clubs is that of determining the membership margin... the size of the most desirable cost and consumption sharing arrangement... an economic theory of clubs can strictly apply only to the extent that the motivation for joining in sharing arrangements is itself economic; that is, only if choices are made on the basis of costs and benefits of particular goods and services as these are confronted by the individual. Insofar as individuals join clubs for camaraderie as such, the theory does not apply." (Buchanan, 1965). For instance, it would not apply to the *arisan* in Indonesia, which is said to exist at all social levels, because "their very nature makes it impossible to determine their overall monetary importance" and they "appear to act more in the nature of social clubs than true financial institutions." (Ross Mcleod, 1984).

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USES OF FUNDS B
AND LOAN ASS

Use	Sierra Leone	Liberia	Ghana	Benin	Nigeria
Trade[1]	x	x	x	x	x
Acreage expansion		x		x	
"Property"				x	
Buses, trucks, or taxis		x		x	
Bicycles for business					x
Canoes			x		
Palm groves					x
Fish nets			x		
Grain grinding mill				x	
"Tools"					x
Seed					x
Fertilizer				x	
Hire labor				x	
Roads, schools, or hospitals		x			x
Livestock				x	
Education					x
Bridewealth		x		x	x
Taxes					x
Collateral for loan					x
Build houses (use unspecified)			x	x	x
Improve houses[2]		x		x	
Litigation					x
Travel (purpose no specified)					
Food or clothing	x				x
Bicycles (use unspecified)				x	x
Sewing machines					
Radios		x		x	
Jewelry					
Ceremonies (including funerals)		x		x	x
Parties & other entertainment		x			x
Medical expenses			x		

[1] Includes "buy trade goods", "finance new business", and "build rental houses"

[2] Provision of a metal roof specifically mentioned for Benin and Cameron

Source: Marvin P. Miracle, Diane S. Miracle, and Laurie Cohen, Ibid. p. 716.

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INFORMAL SAVINGS
IATIONS: AFRICA

Niger	Cameroon	Zaire	Congo (Brazzaville)	Ethiopia	Zambia	Malawi
	x	x		x	x	
	x	x				
	x	x		x		
x				x	x	
	x				x	
	x			x		
				x		
	x					
	x	x	x			x
	x		x	x		
	x		x			
		x				
x	x	x	x	x		
	x					x
						x
	x	x				
	x			x		
	x					

Table 6

USES OF RURAL CREDIT IN SELECTED SEACEN COUNTRIES[1]

(Percent of the total borrowings)

	Malaysia[1] 1980	Nepal[2] 1982	Sri Lanka[3] 1976	Philippines[4] 1972
Farm production	72.2	59.6	55.9	49.8
Operating expenses	(64.6)	(8.3)	(53.1)	(15.3)
Capital investment	(7.6)	(51.3)	(2.8)	(34.5)
Consumption	19.9	25.1	25.2	35.9
Non-farm activities[5]	(1.0)	15.3	11.4	5.4
Other[6]	6.9)		7.5	8.9
Total	100.0	100.0	100.0	100.0

1 R.J.G. Wells, *The Informal Rural Credit Market in Peninsular Malaysia,* 1980

2 Nepal Rastra Bank, *An Evaluation Study of Small Farmers Development Projects of Nepal,* 1982

3 N. Sanderatne, *A Profile of the Informal Rural Credit Market in the Mid-Seventies*

4 National Economic and Development Authority of the Philippines, *Report of the Inter-Agency Committee on the Study of Interest Rates*

5 Mainly business activities in trade and industry

6 Mainly housing construction and repair and settlement of debts

advent of organized finance in developing countries. In contrast the third major constituent group in the informal financial sector consisting of fringe banking institutions such as private financing firms, including unlicensed finance companies, may be described as the 'reactive' component of informal finance inasmuch as it manifests the responses, of the formal sector. A good example is the growth of finance companies in Malaysia and Thailand. The proliferation of private financing firms in the Kerala state in India in recent years is attributed as a response, among others, to the credit restrictions on scheduled banks and the closure of credit unions due to the implementation of the Kerala Chitties Act, 1975 (Prakash, 1984). These private financing firms offer a much higher rate of interest (payable monthly) than the commercial

banks on deposits in the form of promissory notes encashable at short notice. The interest on deposits above the legal maximum of 9 percent and on loans above the legal limit of 12 percent under the Kerala Money Lenders Act is said to be paid in the form of unaccounted money from the underground economy. The firms lend only to local businesses, especially traders, in the form of 3 month or 100 days block loans or daily repayment loans (both given after deduction of the interest in advance) which are repayable in 100 daily installments. The loans are given on the guarantee or recommendation of a partner on the strength of a promissory note with two known sureties or for larger amounts on equitable mortgage deeds and other collateral securities. Some firms even accept postdated checks at the time of issue in order to ensure timely repayment of loans.

III. Quantitative Evidence: Size and Share of Informal Finance

A striking feature of the literature on the informal financial sector, which is largely qualitative, is the paucity of systematic quantitative information, whether time-series or cross-section, on the size, stocks, flows, and turnover, in informal financial markets. The available data which are based on benchmark surveys for specific years cannot therefore be used to draw any inferences on the overall trends in the size and flows of informal finance. This situation could be attributed to the heterogenous composition of the sector which raises intractable conceptual and statistical problems of measurement compounded by the inherent difficulties of collecting information on a form of finance which by its very nature relies on secrecy and informality for the efficacy of its operations. Not surprisingly, even the well endowed Banking Commission of the Government of India (1972) found it difficult to obtain precise quantitative information on the informal sector and had to rely on the memoranda submitted by the association of indigenous bankers, personal interviews, field inquiries, coupled with careful examination of commercial bank and official records.[1] The Commision reported that indigenous bankers provided one-twelfth to one-half of all credit to different categories of industrial units. Nevertheless the available data (see Tables 7, 8, and 9) do establish that the informal

[1] The study of informal urban credit markets in India by Timberg and Aiyar (1980) was based on selected interviews by three investigators with lenders, borrowers, and intermediaries covering almost one thousand respondents. But the authors admit that "informal credit market actors are notoriously shy about publicity — and the task of convincing a number of them to share their knowledge was an arduous diplomatic one." (Ibid., p. 13). The authors roughly estimate that informal credit markets account for as much as 20 percent of total commercial credit outstanding in the various markets surveyed.

Table 7

INDICATORS OF THE RELATIVE SIZE OF THE UNORGANIZED MONEY MARKET

Region and Country	Latest year	Agricultural Indebtedness as Percent of: Claims of banking system on private sector	Currency in circulation	Income originating in agricultural sector	National income
Asia					
India	1969—70	108	131	...	13
Korea	1964	87	195	15	8
Nepal	1970	175	85	7	5
Pakistan	1971	126	197	...	33
Philippines	1969	78	276	60	21
South Viet Nam	1967—68	82	35	24	7
Sri Lanka	1969	84	112	30	12
Taiwan	1970	29	136	62	11
Thailand	1970	30	71	17	7
Mean		89	138	31	13
Median		84	131	24	11
Latin America					
Brazil	1968	39	187	55	10
Chile	1969	37	95	49	4
Costa Rica	1964—65	86	338	82	25
Ecuador	1966	31	81	...	6
Mexico	1966	66	109	...	6
Mean		52	162	62	10
Median		39	109	55	6
Middle East					
Afghanistan	1971—72	12	6	...	...
Iran	1970—71	63	301	63	16
Turkey	1967	55	168	46	17
Mean		43	158	54	16
Median		55	168	...	...
All countries					
Mean		70	148	42	12
Median		66	131	48	10

Source : U Tun Wai, "A Revisit to Interest Rates Outside the Organized Money Markets of Undeveloped Countries", *Quarterly Review,* Banca Nazionale del Lavoro, No. 122, September 1977, p. 292.

Table 8

COMMERCIAL BANK CREDIT TO AGRICULTURE AS PERCENT OF TOTAL BANK CREDIT TO THE PRIVATE SECTOR[1]

Region	Percent
Africa (29 countries)[2]	
Mean	14.7
Median	9.4
Asia (12 countries)[3]	
Mean	8.0
Median	7.2
Latin America (20 countries)[4]	
Mean	13.9
Median	10.9
Middle East (9 countries)[5]	
Mean	10.0
Median	8.9
All countries (70)	
Mean	12.7
Median	9.2

1 Latest available date during the period 1971—73

2 Algeria, Benin, Burkina Faso, Cameroon, Central African Republic, People's Republic of Congo, Gabon, Ghana, Ivory Coast, Kenya, Lesotho, Liberia, Malagassy Republic, Malawi, Mali, Mauritania, Mauritius, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, Tanzania, Togo, Tunisia, Uganda, Zaire, and Zambia

3 Burma, Fiji, India, Korea, Malaysia, Nepal, Pakistan, the Philippines, Singapore, Sri Lanka, Taiwan, Thailand

4 Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Surinam, and Trinidad and Tobagò

5 Cyprus, Egypt, Ethiopia, Iran, Iraq, Jordan, Libya, Syria, and Turkey

Source: U Tun Wai, Ibid., p. 296.

Table 9

INSTITUTIONAL FARM CREDIT, SELECTED COUNTRIES

(Percentage of farm families)

Country	Percentage	Country	Percentage
Africa			
Ethiopia	1	Sri Lanka	14
Ghana	1	Thailand	7
Kenya	12	Turkey	23
Morocco	10	Viet Nam[2]	21
Nigeria[1]	1		
Sudan	1	**Latin America**	
Tunisia	5		
Uganda	3	Bolivia	5
		Brazil	15
Asia		Chile	15
		Colombia	30
Bangladesh	15	Ecuador	18
India	20	Guatemala	2
Jordan	8	Honduras	10
Malaysia	2	Mexico	15
Pakistan	5	Nicaragua	20
Philippines	28	Panama	4
Republic of Korea	40	Peru	17

[1] Data only for Western Nigeria

[2] Data only for former Republic of South Viet Nam

Note: These numbers suffer from an upward bias. Some farmers borrow from more than one institution, but it was not possible to eliminate such duplication. Also, some of the statistics represent potential rather than actual borrowers, as is the case for the Republic of Korea, where coverage exceeded 30 percent for farm households. There, for example, all farmers are members of the National Agricultural Co-operative Federation (NACF), the major source of institutional credit. However, in any one year perhaps no more than one third of the farmers actually borrow from NACF. Furthermore, some of the statistics are based not on national data but on a sample survey. If the sample was taken in an area where an institution was active, as often appeared to be true, there would be overestimation of coverage.

Source: World Bank, *Agricultural Credit,* Sector Policy Paper (Washington, D.C., May 1975).

sector is generally more important in rural finance except in a few countries such as Korea where the urban informal financial markets are significant. The results of two pioneering surveys, two decades apart, point to the following broad conclusions (Tun Wai, 1980).

Non-institutional finance is still much more important in Africa, Asia, and the Middle East and it is only Latin America that institutional sources are more significant than non-institutional sources. The size of the non-institutional sector, measured by the ratio of rural indebtedness to the claims of the banking system on the private sector, was larger than the institutional sector in about half of the sample of 16 countries in the 1950s, while in the 1970s in only three countries out of a sample of 17 countries unorganized financial markets were larger than organized ones. In about one half of the countries, unorganized markets were at least three fourths as large as the organized markets. However, the comparison of a stock item like rural debt with flow items like national income and agricultural income is not meaningful and cannot therefore be used as a proxy for estimating the size of informal finance. Similarly, the economic rationale for the comparison of rural debt with currency in circulation is rather obscure.

The available data for SEACEN countries suggest that despite the significant declines in the share of non-institutional credit, it still accounts for a range of 53 percent to 75 percent of rural credit, with the exception of the Philippines where the lower non-institutional share of rural credit (32 percent) is attributed mainly to the expansion of the network of rural banks since 1952 (Table 10).

IV. Level, Structure and Formation of Interest Rates

Although the available data are fragmentary and have therefore to be interpreted with due caution, they afford a reasonable basis for the consensus view that interest rates in the informal financial sector (Table 11) are generally much higher than in the formal sector (Table 12) and are also known to exceed in practice the ceilings prescribed under usury laws which are difficult to monitor and implement. There is also a segment of interest-free loans which generally reflects kinship and patron-client relationships particularly in the rural areas.

Nominal rates are not always indicative of the effective rates of interest because of concealed interest charges on borrowers on loans in kind through deliberate underpricing of harvested crops which are

Table 10

SHARE OF NON-INSTITUTIONAL RURAL CREDIT IN SELECTED SEACEN COUNTRIES

(In percent)

	Institutional	Non-institutional
Nepal	79 (1969/70)[1]	57.1 (1982)[2]
Malaysia		75.0 (1979)[3]
Philippines		31.5 (1971/72)[4]
Sri Lanka	86 (1963)[1]	60.0 (1981/82)[5]
Thailand	94.5 (1965)[1]	52.5 (1972/73)[6]

1 SEACEN Centre, *Unorganized Money Market in the SEACEN Countries*, unpublished, (1985) which cites the following

2 Nepal Rastra Bank, An Evaluation Study of Small Farmers Development Projects of Nepal, 1982

3 R.J.G. Wells, *The Informal Rural Credit Market in Peninsular Malaysia*, (1980)

4 *Philippine National Survey*, 1971—72.

5 Central Bank of Ceylon, *Consumer Finance Survey Report*

6 Bank of Thailand, *Task Force on Agricultural Development*

used to amortize debts and such other channels. On the other hand, the high quoted rates of nominal interest (over 100 percent per annum) may also overstate the effective real rates of loan interest in as much as actual rates of interest cannot exceed the margin between subsistence and actual income. They are mainly an institutional mechanism to keep farmers permanently in debt and to maximize the current income of the lender who is more concerned to ensure payment of interest than amortization of principal. Rural debt may thus be likened to Consols, i.e., obligations which are serviced but never redeemed. The bulk of rural indebtedness in the developing countries is of an intergenerational character. In fact given the average farmer's propensity to be a perennial net debtor it is more realistic to postulate a intergenerational theory of rural debt rather than a life-cycle theory of saving as formulated in standard economic theory by Modigliani and others. It should also be noted that the high rural rates of interest are exclusively loan rates since rural money lenders do not accept deposits. Consequently, these rates have no influence on the propensity to save of the informal sector.

Table 11

NON-INSTITUTIONAL RATES OF INTEREST, 1968—71

Region and country	Date	Lower exceptional	Usual	Occasional	Higher exceptional
Africa					
Burundi[1]	early 1960s				300
Ethiopia	1970	40—60			
Ethiopia (Chilalo)	1971		70	90	120
Ghana	1955		50	70	100
Ivory Coast	1972		150	200	
Madagascar	1962				300—400
	1971		30	100	
Nigeria	1958		20—50	50—70	
	1961	less than 10	10—50	70	
Senegal	1960s		60	80	
Sudan	1972		60	130	200
Asia					
Hong Kong	early 1960s		30—40	60	120
India	1962	8—12	18—37	33⅓—50	100—150
Indonesia	1950—57		40		80—100
Korea	1969	36	42—54	72	100[2]
Malaysia	1968		24—36	40—60	133—200
Nepal	1969—71	10	25	50	
Pakistan	1962		20—32	46	100
Philippines	1954—55	10—20	25—30	100	200
South Viet Nam	1966—67	12	36	60	
	1972		30—36	60—72	
Sri Lanka[3]	1969	6	26[4]	35	above 100
Thailand	1962—63	11	22—35	40—50	80—150
Latin America					
Bolivia	1961		48	96	120
Brazil	1969	15	29—40	60	
Chile	1964—65	27	85	105	155
Colombia	1963		24	60	95
Costa Rica	1969	12	18—24	35	over 100
Ecuador	1965—66	2	20—27	50	80
El Salvador[1]	1970		25		
Honduras[1]	1971		40		
Mexico	1968		36—72	144	300
Paraguay	1972	18	24—30	36	60

Table 11, Cont'd.

Middle East					
Afghanistan[5]	1963		33		
	1971	18	35	50	
	1971	7	18—24	30	48
Iran	1971				
Jordan[1]	1971		20		
Lebanon	1972	10	16—20	25—36	

[1] No range of data available

[2] 1967—68

[3] About 45 percent of loans have no interest

[4] Weighted average

[5] Most loans are free of interest and obtained from family members

Source: U Tun Wai, *Economic Essays on Developing Countries,* Sijthoff and Noordhoff, Netherlands, 1980, p. 180

Table 12

ASIA: REAL DEPOSIT RATES OF INTEREST 1961—81

(Continuously compounded nominal yield on 12-month time deposits minus expected inflation)

Date	BU	IN	IO	KO	MA	NE	PA	PH	SI	SR	TH
1961	4.1	—0.3	—10.1	2.0	8.1	—9.1	0.5	—0.4	5.6	2.4	4.5
1962	4.9	0.2	—37.4	3.4	7.3	—6.7	1.7	1.1	4.4	3.4	6.8
1963	3.9	—1.1	—53.1	—2.9	6.2	—5.9	2.1	—0.1	3.4	3.1	7.3
1964	5.3	—2.0	—59.2	—7.8	4.8	—7.5	1.1	—0.6	3.2	2.4	6.4
1965	4.1	—1.6	—76.6	—0.7	5.4	—7.3	0.8	—0.3	3.8	2.3	5.2
1966	3.7	—3.3	—133.9	7.5	5.5	—5.2	1.3	0.8	3.7	3.0	3.3
1967	1.3	—3.3	—122.4	8.0	4.9	—1.4	—0.1	0.9	4.0	2.8	4.3
1968	1.2	—0.9	—83.4	8.6	6.5	—0.8	0.3	1.2	4.8	0.2	4.9
1969	0.9	—0.6	—36.7	7.6	5.1	0.3	1.3	1.5	4.2	—1.3	4.8
1970	0.6	0.9	—34.0	6.3	5.4	0.6	1.6	0.8	4.2	—1.1	5.7
1971	1.4	2.0	—15.8	6.2	5.8	1.8	1.6	—0.5	2.8	1.0	6.8
1972	1.8	0.5	—10.4	0.2	5.4	—0.1	1.1	—1.0	1.5	1.8	4.8
1973	2.5	—3.2	—7.7	—1.8	2.2	2.7	—0.3	—3.0	—1.4	—1.2	0.1
1974	—5.0	—4.9	—10.5	—4.5	1.6	2.3	—3.3	—5.8	—3.0	—7.6	—3.0
1975	—4.9	—0.5	—5.8	—5.6	3.1	1.2	—5.4	—4.1	—1.2	—8.8	—1.4
1976	—5.6	—1.1	—3.2	—4.6	0.4	1.1	—5.6	—2.9	0.8	—5.3	—9.0
1977	—6.2	—0.1	—4.1	—2.9	—0.8	3.5	—5.2	—1.9	2.6	0.3	—0.4
1978	—3.5	1.6	—4.7	—2.8	—1.0	3.7	—4.1	0.5	4.2	5.3	—0.1
1979	—2.3	0.3	—9.9	—0.4	—1.4	6.3	—2.7	2.0	4.9	4.0	0.1
1980	4.5	—1.1	—9.8	0.6	—0.4	4.6	—1.2	0.9	3.2	4.9	1.7
1981*	6.3	—1.3	—9.1	—3.0	—0.6	2.2	—0.2	1.0	3.2	3.7	1.1
Av.	0.9	—0.9	—35.1	0.6	3.5	—0.7	—0.7	—0.4	2.8	0.7	3.0

* Nominal deposit rates are assumed to remain at their December 1980 levels throughout 1981

Country Key:

BU — Burma
IN — India
IO — Indonesia
KO — Korea
MA — Malaysia
NE — Nepal
PA — Pakistan
PH — Philippines
SI — Singapore
SR — Sri Lanka
TH — Thailand

Source: *Interest Rates in Asia* by Maxwell J. Fry, (Table 5); A study prepared for the Asian Department, International Monetary Fund, (unpublished), June 25, 1981.

There are no consistent data to substantiate whether interest rates in the informal sector have declined over time. A sample survey of 14 countries (Ethiopia, Nigeria, and Zambia; India, Korea, Nepal, Pakistan, South Viet Nam, Sri Lanka, and Thailand; Brazil, Chile, and Ecuador; and Iran) concluded that the level of nominal interest rates charged by non-institutional lenders had declined from an average of about 40 percent per annum in the 1950s to an average of about 30 percent per annum in the 1970s (Table 13). Over the 20-year period, the gap between the interest rates in the non-institutional and institutional sectors is said to have narrowed because of improved links between the two sectors and an increase in the rates in the organized sector (Tun Wai, 1980). The other factors which contributed to a narrowing of

Table 13

USUAL NON-INSTITUTIONAL RATES OF INTEREST 1948—51 and 1968—71

(In percent per annum)

Region	Number of countries 1948—51	Number of countries 1968—71		Interest rates 1948—51	Interest rates 1968—71
Africa	1	7	mean	45	65
			median	45	60
Asia	10	11	mean	41	32
			median	31	30
Latin America	5	10	mean	48	38
			median	30	30
Middle East	6	4	mean	44	24
			median	43	20
All regions	22	32	mean	44	40
			median	33	30
13 countries common in both periods[1]			mean	40	30
			median	34	28

[1] These consist of Nigeria; India, Indonesia, Pakistan, Philippines, South Viet Nam, Sri Lanka, and Thailand; Colombia, Honduras, and Mexico; Jordan and Lebanon.

Source: U Tun Wai, Ibid., p. 181 Lebanon.

the gap could be identified as the increased commercialization, monetization, and financial deepening of the rural sector as a result of the enlargement of institutional credit in rural areas. Nevertheless, the absolute level of interest rates in the informal sector still tends to be high in relation to the real rates of interest in the formal sector.

It is, however, difficult to determine optimal rates of interest for the informal sector by reference to any *a priori* criteria such as the concept of the social opportunity cost of capital (i.e., the marginal value of productivity when all alternative uses of capital have been taken into account). Such concepts are, first, derived from highly aggregative and static equilibrium models based on restrictive and unrealistic assumptions such as a closed economy, perfect competition, constancy of returns to scale and of savings ratios. Secondly, such models raise difficult problems of measurement of the key variables such as the stock of capital and capital/output ratios. Thirdly, they yield a unitary rate of interest for the whole economy which cannot be used even as an approximate index of the real cost of capital in fragmented capital markets given the multiplicity of customer rates of interest. Lastly, even the concept of real rates of interest in the formal sector raises problems. Strictly, such rates should be derived not by correcting the nominal rates of interest by past rates of inflation, as is often done in the literature, but by using expected rates of inflation to apply to particular assets. The real rate of interest and the expected rate of inflation would then naturally vary with the period for which the asset is held, unless one uses the yield on undated government securities, or else the savings deposit rate, as a reference rate in order to obviate the problem of choosing an appropriate maturity. But the guideline that real rates of interest should be positive does not help to determine the precise level of the real rates of interest for policy purposes. Moreover, even if real rates are positive they do not necessarily act to clear the credit markets. The choice of the optimum rates and levels of savings and investment involves issues of intergenerational equity which cannot be resolved without value judgments. There is therefore an unavoidable element of indeterminancy both in the choice of an appropriate real rate of interest and a social rate of discount. Consequently, policymakers have necessarily to invoke empirical and judgmental criteria in formulating and applying interest rate policies.

In this context it is important for the policymaker to identify the possible causes and their relative weights for the high levels of interest rates in the informal sector. Conceptually, the nominal rate of interest could be decomposed and attributed to: (a) behavioral factors like (1)

the liquidity premium (i.e., the pure rate of interest); (b) institutional factors (2) the risk premium (i.e., to cover risks of delays and defaults); (3) costs of administration (transactions) and information; (4) the opportunity cost of capital; and (5) a residual comprising other institutional factors such as imperfections of informal credit markets, reflecting lenders' monopolistic or oligopolistic positions in the land, money and commodity markets. Different writers have tended to assign different weights to the causal factors underlying the formation of high rates of interest in the informal sector. Some have presented a taxonomy without assigning differential weights (Bottomley, 1963, 1964, 1971, and 1975); some have tended to assign a dominant weight to monopolistic or quasi-monopolistic elements (Wharton, 1962; Chandavarkar 1965) or to the exploitative mechanism inherent in the rural class and power structure (Bhaduri, 1977); others have invoked the asymmetry of information of borrowers and lenders in the face of uncertainty (Akerlof, 1970).

There is no robust empirical evidence to substantiate these various hypotheses which largely reflects the inherent difficulties of applying systematic and conclusive tests to measure the relative weights of the different components of interest rates. For one thing there is the basic conceptual problem arising from the interdependence of the interest rate and its components. Thus, while the high rates of interest may be partly due to the high risk premium arising from the potentially high default rate, the latter may equally be a positive function of a high interest rate (Bhaduri, 1977). Similarly, the exclusive emphasis on the components of the interest rate from the supply side of credit amounts to a partial equilibrium approach which abstracts from the determinants of the demand for credit.

The available evidence on the relative weights of the components of interest rates, not surprisingly, shows conflicting results. Thus a simulation of Malaysian data along the lines of Bottomley's taxonomy (Table 14) showed "little evidence of monopolistic-monopsonistic exploitation in the rural credit market" (Wells, 1980). But the finding in this investigation of a uniform percentage of opportunity cost (7) and administrative cost (3) to all groups of lenders does not seem plausible given the sheer diversity in the portfolios of lenders.

In contrast, a sample survey (1963—67) of a village in Punjab (India) found that the opportunity cost of lending accounted for the largest weightage which exceeded the total of the risk premium, cost

Table 14

LENDING COST STRUCTURE OF INFORMAL RURAL LENDERS IN MALAYSIA

(In percent)

Lender	Opportunity Cost	Average Administrative Cost	Risk Premium	Monopoly Profit	Weighted Average Interest Rate
Pawnshop	7	3	2.64	1.43	14.07
Shopkeeper	7	3	2.64	3.74	16.38
Moneylender	7	3	11.40	6.04	27.44
Rice miller	7	3	5.30	—3.56	11.74
Relatives	7	3	5.40	—9.78	4.62
Friends	7	3	5.40	—7.56	6.84

Source: R.J.G. Wells, *The Informal Rural Credit Market in Peninsular Malaysia,* 1980

of distribution and monopoly profit (Table 15). According to this survey the weightage of the components of the interest charged was as follows: the opportunity cost (measured by net returns from farming with existing capital deducted from the net returns possible using that capital plus the loaned money, estimated by linear programming) accounted for more than 50 percent; risk (based on irrecoverable loans during the period) accounted for some 25 percent; distribution cost (including the costs of lending, collecting, and maintenance of records, etc.) for about 15 percent, and the residual (used as a proxy for monopoly profits) for only 6 percent. A major limitation of this study is its restricted coverage of only consumption loans.

According to another estimate, about one-sixth of the 29 percentage point difference between institutional rates (averaging 11 percent) and non-institutional rates (averaging 40 percent) was attributed to defaults and risk factors; one-sixth to monopoly profits; and one-third each to the willingness of borrowers to pay high rates and to factors such as inadequate collateral and high opportunity costs for money lenders (Tun Wai, 1980). On the basis of this estimate, if one deducts one-sixth of the differential attributable to defaults and risk, the remaining factors could be said to be largely institutional. Although the conflicting statistical evidence, which may plausibly reflect the sheer diver-

Table 15

INDIAN VILLAGE: COMPONENTS OF INTEREST RATE[1]

Lender	Interest rate	Opportunity cost	Cost of distribution	Risk cost	Monopoly profit
1	143	95	14	43	—8
2	159	100	24	25	9
3	146	87	31	23	6
4	134	54	22	35	24
5	143	62	23	40	18
6	143	72	20	36	15
7	138	65	23	39	11
Average	143	77	21	36	9

[1] Charged by different lenders expressed as annual percentage rates on amounts loaned
Note: Column averages may be affected by rounding

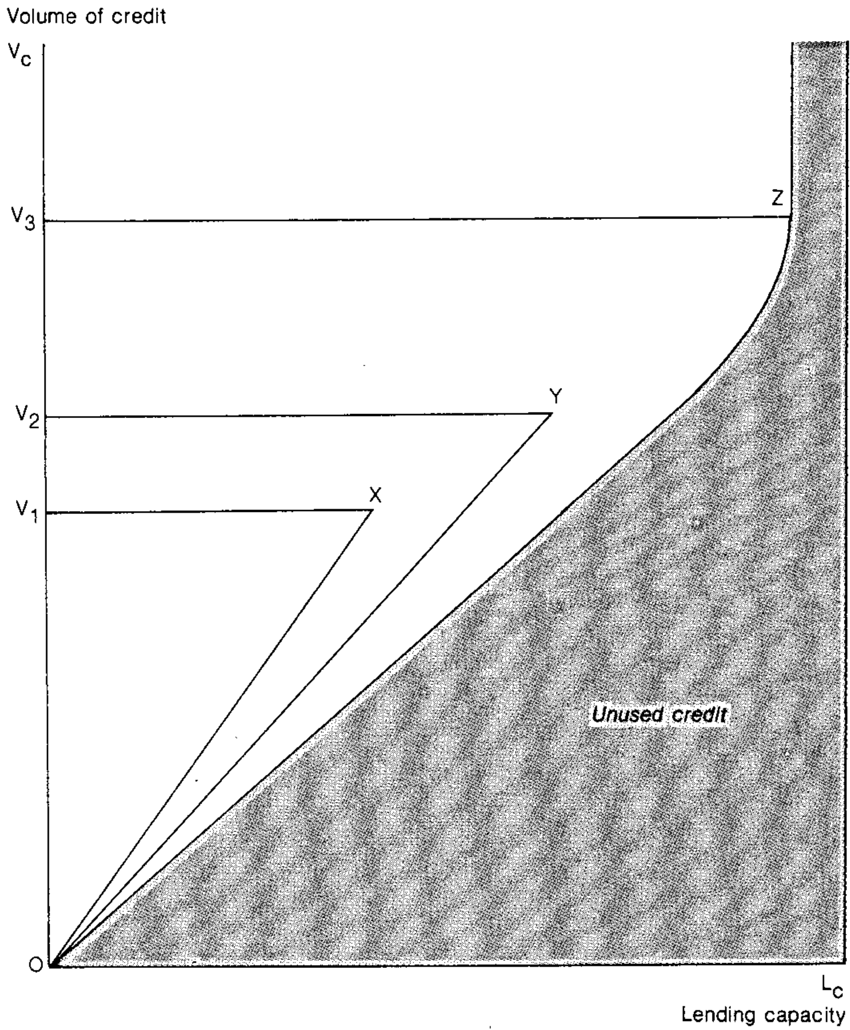
Source: Karam Singh, "Structure of Interest Rates on Consumption Loans in an Indian Village," *Asian Economic Review,* Vol. 10, No. 4, August 1968, pp. 471—478.

sity of conditions, is at best suggestive, it nevertheless affords considerable support for the hypothesis that "the most important influence upon interest rates — which account for, say, the difference between 30 percent in an Indian village and 3 percent in London — are social, legal, and institutional" (Joan Robinson, 1960). It could therefore be maintained that the aggregate of the institutional factors would outweigh any measure of the purely behavioral factor, viz., the liquidity premium.

The predominance of institutional as against behavioral factors could be elucidated by means of a stylized model (Figure 1) which represents the formation of interest rates through interacting sets. The determinants of interest rates could be broadly classified into: (a) collateral (line OX in Figure 1); (b) liquidity premium (i.e., pure rate of interest measured by a representative rate on the most risk-free obligation, preferably undated, such as government securities), (line OY); (c) risk premium, opportunity cost, costs of administration, and quasi-monopolistic elements arising from interlocking trade, credit, and tenancy arrangements (line OZ). The interest rate, A, could then be defined as a set of the elements OX (institutional), OY (behavioral), OZ (institutional); B is a unit set consisting of a single element, (unused

Figure 1

LENDING BEHAVIOR IN THE INFORMAL FINANCIAL SECTOR



credit); A and B are therefore interacting sets. Collateral represents a finite quantity with a terminal point X because of physical and legal limitations on the volume of pledgeable assets such as crops, livestocks, farm implements, and land (on account of restriction on alienation); OY too could be regarded as finite because the pure liquidity premium, cannot exceed the rate of return on the most risk-free undated or longest dated asset (e.g., government securities); OZ represents the outer (institutional) bound of lending; the shaded space bounded by OZ and O + C (unused credit) is indicative of credit rationing.

Since all the three determinants are relevant for a lending transaction, the curves have a common origin which need not necessarily be at O in the case of collateral inasmuch as loans can also be extended without collateral (unsecured advances). It is therefore possible for OX to originate from a point further along O — L_c. But OY and OZ necessarily have to originate from O as they represent necessary conditions (OY) and sufficient conditions (OZ for lending). The bounds of lending (OZ) are set by the size of funds available for lending and the operation of the Lemons Principle, i.e., economic models in which trust and first-hand knowledge of customers is important (Akerlof, 1970). This curve (OZ) is asymptotic because of the floor level of credit rationing, which reflects the high opportunity costs of lending determined by the combination of lending and non-financial business typical of the informal sector. But the boundaries of the respective determinants of lending are difficult to define precisely and are not necessarily quantifiable. Therefore the sets underlying Figure 1 may more aptly be characterized as a 'fuzzy set'.[1]

The prevalence of high usurious rates of interest in the developing countries points to an interesting paradox: unlike the real informal sector which provides nonfinancial goods and services at the relatively low prices to consumers, the informal financial sector provides high priced financial sevices to borrowers. But even these high rates do not clear the markets and credit rationing prevails despite the

[1] See L.A. Zadeh ("Fuzzy Sets, "*Information and Control,* 8 (1965): 338—53, and "Similarity Relations and Fuzzy Orderings," *Information Sources,* 3 (1971): 177—200.) cited in Donald W. Katzner, *Analysis without Measurement,* Cambridge University Press, Cambridge, 1983. "Let X be a set of not necessarily quantifiable elements and denote the unit interval (with end points) of real numbers by [0, 1]. A fuzzy set A in X is defined by "membership" function f_A: X [0, 1], which determines the grade of membership, f_A (x), in A of each x in X. Membership grades start at O and cannot exceed 1. An element does not "belong" to a fuzzy set — the boundary is too blurred to permit such fine distinctions" (Ibid, p. 59)... Fuzziness arises because the boundary of the set itself is blurred — not the boundaries of the arithmomorphic objects from which the set is built up." p. 141.

ability and willingness of borrowers to pay high rates of interest. This suggests that the availability of credit is more crucial than its price in the informal sector. What then is the justification for usury laws with statutory ceilings on interest rates? It has been argued that usury laws, if effective, have a detrimental effect on economic activity by restricting the volume of potential credit, particularly for residential construction (Bowsher, 1974, and Crofton, 1980). Other studies show that the burden of interest rate ceilings "falls particularly on the relatively poor" (Phaup and Hinton, 1981). Usury laws have also been found to result in higher down payments, shorter maturities on mortgages, and a general reduction in the supply of mortgage funds. In view of these findings for a developed economy like the U.S.A. the conventional economic rationale of usury laws in developing countries is even more questionable alike on grounds of efficiency and equity, and also harder to justify given the growing financial deregulation of the formal sector itself.[1] The putative benefits of usury laws may be more than offset by their adverse effects on the potential supply of informal credit.

V. Economic Rationale and Characteristics

Broadly, the genesis and economic rationale of the informal financial sector derives from a varying combination of autonomous and reactive factors. First, it is an autonomous sector which historically antedates the formal sector and its subsequent survival on the basis of competitiveness shows that in most developing countries for the majority of rural farmers, small and medium business enterprises, and urban households, the informal financial markets fulfil many needs which are not satisfied elsewhere. Secondly, it is also a reactive sector particularly in the urban areas insofar as it represents a response to financial repression as well as market and organizational failures in the formal sector and meets the demand of not only small-scale borrowers but also of the unsatisfied fringe of medium and large scale borrowers in the organized sector. Thirdly, it is also a manifestation of the underground economy insofar as informal credit markets serve as a conduit and reservoir for financial flows resulting from evasion of taxes and controls.

[1] "Usury laws are enacted for the protection of the borrower and for the prevention of extortion and unjust oppression by unscrupulous persons who are ready to take undue advantage of the necessities of others" (*Inter-Agency Report on Interest Rates, Philippines, 1972*). The Anti-Usury Law (1916) — Act. No. 2655, as amended prescribes ceilings of 12 and 14 percent per annum on secured and unsecured loans, respectively. In Malaysia, the Money-lending Ordinance, 1951 prescribes ceilings of 12 and 18 percent on secured and unsecured loans, respectively.

The distinguishing feature of the informal sector is the absence of "financial repression" defined as "a situation in which the repressive effects of usury laws, bank reserve requirements, credit controls, and price inflation interact to reduce and distort the flow of domestic savings" which "causes severe misallocation of scarce capital" and "is the rule rather than the exception in less developed countries" (McKinnon, 1984). But the description of financial repression in developing countries is, strictly speaking, applicable only to the formal sector in as much as the informal sector is subject to virtually no statutory controls other than that of licensing and registration of professional moneylenders and the usury laws, which are usually evaded in practice. The informal sector also escapes the implicit taxation of the institutional sector which occurs through government preemption of funds by borrowing from captive markets at controlled, i.e., below equilibrium, rates of interest, and the subsidized borrowing, i.e., at preferential rates, of the so-called priority sectors, like export and rural credit, in the institutional sector. There is complete freedom and ease of entry and exit which creates an important necessary condition of "costlessly reversible entry" for the operation of perfectly contestable markets (Baumol, Panzar and Willig, 1982). The contestability of informal credit markets has, however, to be qualified insofar as there is a considerable degree of oligopoly-oligopsony among lenders due to the interlocking of rural markets for credit, land, labor, and commodities through share-cropping, tenancy, and implicit labor contracts. Generally, the informal credit markets are customer rather than auction markets with a predominance of quantity as against price adjustments (Okun, 1981). The informal financial sector is thus a paradoxical combination of competitive as well as oligopolistic and oligopsonistic elements.

The absence of formal regulation and the high degree of informality and secrecy confer competitive advantages on the informal sector vis-a-vis the formal sector. Lenders have intimate knowledge of their borrowers which virtually eliminates costs of appraisal and information. Likewise, transaction costs in the informal sector are also low because of the minimal documentation and reporting requirements, coupled with the low overheads of staff, premises, and equipment, and the flexibility of collateral, lending procedures, and hours of work. On the other hand, the expansion of the formal sector is constrained because of the relatively small lending base of family businesses and fringe banks. Consequently, the average scale of operations is much smaller than in the formal sector. The scope for financial innovations is also comparatively less given the narrowness of financial markets. The generation of

monetary substitutes presupposes wide and active financial markets and a widespread dealer mechanism. Consequently, the tendency of controls over monetary aggregates and banking institutions to breed substitutes so often noticed in the developed countries (Goodhart's Law),[1] is correspondingly constrained in the developing countries.

VI. Implications for Monetary Policy and Financial Intermediation

In the light of the foregoing analysis and evidence, it would be pertinent to examine the implications of the informal financial sector for monetary policy and financial intermediation. In this context it is important to stress that the financial sector in the developing countries is in reality a continuum with varying combinations in space and time of the formal and informal elements which are not independent non-competing groups. The links between the two sectors exhibit a multiple relationship, which is at once competitive and complementary.[2] All this, of course, reflects and reinforces the fungibility of money and credit. In assessing the implications of the informal sector for the efficacy of monetary policies through its probable effects on the cost, availability and end-use of credit, and for the prudential aspects of central banking the following points are pertinent.

The liabilities of lenders in the informal sector do not constitute money in the sense of legal tender or substitutes for it (cheques). They therefore do not affect the total supply of narrow money (currency plus demand deposits) but may affect broad money and the velocity of circulation.

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[1] i.e., "that any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes." (Goodhart, 1984)

[2] For instance, this is historically true of India, the country with perhaps the largest informal financial sector. "The money market controlled by the top Indian bankers... was as well organized in its own way as that organized through European-style institutions. In the sense of linking up the network of large Indian bankers with that of joint-stock banks, this integration was largely achieved by the 1870s.... However, their integration simply meant that joint-stock banks had a share in the profits made by Indian bankers in their roles as financiers of trade, of *zamindars* and peasants' subsistence. It had no noticeable influence on the exorbitant rates of interest paid by peasants, artisans and workers, for they were linked to the fundamental forces determining the rate of exploitation rather than to purely monetary phenomena. The investigation of the exact reasons for the failure of the alleged effects of "integration" to materialize is yet to be studied by economists and historians." (A.K. Bagchi, 1982)

The bulk of transactions in the informal sector are mediated through the use of currency, except for the limited use of documentary credits by indigenous banker. The lenders in the informal sector do not operate on the basis of fractional reserves, and there is hardly any maturity transformation through their operations. Consequently, the informal sector partakes more of the character of currency cloakrooms rather than of banks. The predominance of currency means that the debits and withdrawals are largely in cash which consequently dampens the credit multiplier considerably (Table 16).

Table 16

ASIA: CURRENCY RATIOS, 1974—85 (JUNE)[1]

	Currency as percentage of	
	Reserve money	Money
Burma	85.7	91.9
Indonesia	65.9	46.3
Malaysia	71.6	48.4
Nepal	76.2	65.8
Philippines	65.6	48.1
Singapore	72.4	49.3
Sri Lanka	66.9	50.4
Thailand	79.0	65.2
Viet Nam	86.2	74.7

[1] Average of monthly data

Source: *International Financial Statistics*

When the currency holdings of the public rise rapidly, the total monetary expansion from an injection to a given monetary base is greatly reduced because an outflow of currency from banks absorbs an equal amount of reserves. Consequently, the deposit-creating potential of banks is reduced by some multiple unless offset by the central bank within a short period as is the case in the U.S.A. because of the currentness of information on currency movements and the availability of open market and other techniques to maintain or enlarge the monetary base. The constraints on credit policy arising from the large average ratio of currency to demand deposits and money supply are not necessarily related to the size and activity of the informal financial sector, except

as indicated by the ratio of high denomination currency notes to total currency circulation which are usually common in this sector particularly for unrecorded transactions. This question has been raised even in developed countries like the U.S. (Bowsher, 1980).

Loan transactions are more dominant than deposit transactions in the informal sector and most of the lenders operate with their own savings and capital. Consequently its loan rates are more important than deposit rates. The end-uses of informal credit are a mixture of consumption and investment credit with the former more prominent than is usual with institutional credit. The informal sector is more significant as a purveyor of credit to the small borrower than as a vehicle of savings mobilization.

The informal sector is not subject to the controls of the central bank, which are applied to the financial intermediaries in the formal sector such as capital and reserve requirements, portfolio and interest rate ceilings, selective credit controls, moral suasion, and is also not amenable to open market operations because the transactors do not hold active security portfolios. On the other hand, most lenders in the informal sector have direct access to the credit and discount facilities of commercial banks or other institutional lenders, and are therefore indirectly sensitive to quarantine credit controls on the formal sector.

The institutional sector's excess demand for credit may spill over into the informal sector, because of credit controls on the formal sector or else because borrowers may have exhausted their ability to provide collateral. Non-institutional lenders do not usually require such collateral. Thus the informal sector acts as a vehicle of disintermediation by stimulating borrowing or lending outside the non-institutional sector. However, disintermediation may also occur in the formal sector through one or more of the following channels: (a) intercompany borrowing or lending; (b) sale by banks of assets on repurchase agreements to the private non-banking sector; (c) increase in the utilization of acceptance facilities and the rediscounting of such acceptances outside the institutional sector by companies seeking to reinvest their liquid funds; (d) discounting of bank endorsed trade bills with large depositors rather than by banks for their own accounts. This raises the question: Does disintermediation as a result of the operations of the informal sector erode the efficacy of monetary policy and impede the efficient mobilization and allocation of savings?

Both Indian and Korean experience, however, suggest that official monetary policy has an impact, albeit with varying time lags, on the overall cost and availability of money throughout the economy including the informal sector. A pioneering econometric study using a flex-price model of informal credit markets in India concluded, in the light of estimated parameters using annual time-series (1951—52 to 1976—77), that the crucial link between the formal and the informal market is the spillover of excess demand from the bank credit market to the informal market and that "contrary to a popular but untested view, official monetary credit policy has a significant effect on the interest rate in the informal credit market: a contractionary credit policy raises the interest rate in the informal market and an expansionary credit policy lowers it" (Acharya and Madhur, 1984). The authors, however, are cautious in pointing out the limitations of their study, namely: the model uses linear supply and demand equations; it does not allow for any expectational factors; it assumes a homogenous clearing-type informal credit market; the average bazaar bill rate may not adequately represent the cost of funds in that market. Their findings have also to be qualified insofar as any tightening or relaxation of credit policy would have some impact on the availability of credit in the informal sector but not necessarily, or proportionately, on the cost of that credit (interest rates) because of the semi-monopolistic positions of lenders in this sector. Moreover, the inflationary potential of the liquidity of informal credit markets may also be considerable if it generates excessive demand for luxury and semiluxury consumption goods and hedges like gold, real estate, commodities, etc.. This study is, however, suggestive insofar as it establishes a presumptive case to support the efficacy of official credit policy in influencing expenditures financed through both formal and informal credit channels, although it does not address the issue of the uneven or discriminatory sectoral impact of aggregate credit policy owing to their varying sources of finance.

In Korea, according to one study, unregulated markets have "facilitated the working of monetary policy by transmitting signals and funds quickly and mitigating the more arbitrary and disruptive consequences that might have arisen from action in the managed part of the system," and "have been a major factor during the high-growth period in giving the Korean financial system flexibility to the needs of a high-pressure, tightly managed and tightly priced economy" (Cole and Park, 1975). While the informal sector is therefore not insulated from at least the indirect impact of aggregative credit controls, it is clearly beyond the ambit of selective and qualitative credit controls. An interesting

linkage between the formal and informal markets is also provided by the behavior of savings. Thus an increase in rates in the institutional sector is known to have resulted in an inflow of savings from the non-institutional sector in Korea after the interest rate reforms of 1965. On the other hand, reverse flows of savings into the informal sector because of higher interest rates on chit funds, pyramid schemes, etc., have been observed from time to time in Thailand.

Because of these linkages the informal sector may pose difficult problems in regard to the prudential functions of central banking since the informal sector is beyond the purview of the inspection and supervision machinery of the central bank. Its liabilities are not covered by deposit insurance; its reserves are not kept with the central bank; and nor can the central bank act as a lender of last resort in the absence of rediscountable documentary credits or other suitable collateral for refinancing. On the other hand, the "contagion" or "domino" effect of the illiquidity or insolvency of a single or even a group of intermediaries is not likely to be a deleterious as a similar failure in the formal sector because of their smaller average size and scale of operations. Nevertheless the failure of non-bank financial intermediaries may create problems of overall financial safety and call for appropriate action by the central bank. This, therefore, is an area which merits more careful scrutiny.

On the whole, the informal credit markets do not seem to impair overall monetary policy in relation to the cost and volume of credit, although they are not sensitive to selective credit controls. They function primarily as purveyors of small-scale credit, rather than as vehicles of savings mobilization, and cannot cope with the demand of large scale production and trade credit. Their very size and nature precludes maturity transformation and constrains efficient financial intermediation.

VII. A Policy Agenda: Benign Neglect, Regulation, or Mimesis?

The general stance of policy towards the informal financial sector in developing countries can be best described as an amalgam of benign neglect and even prejudice, which is unwarranted considering that its scope and persistence testify, if anything, to its basic economic rationale deriving from its capacity to satisfy needs which are not met by the formal sector. Rather it supports the case for a positive and coherent policy towards the informal financial sector. Although any such agenda would necessarily have to be country

specific, it is possible to formulate the basic minimum elements of a positive policy covering institutions, markets, instruments, and lending procedures.

Given the paucity of information on the informal financial sector and the tendency of policy-makers to rely on stylized facts, an adequate informational base is an essential requisite for a positive policy. It is important to have reliable, comprehensive, and up-to-date macro and micro data on the size and activities of the sector as well as the attitudes of lenders and borrowers, based on: stratified sample surveys; census and tax data, municipal records, corporate balance sheets, central bank inspection reports; and household income, expenditure and debt surveys. These building blocks could be used to better reflect the informal financial sector in national accounts. In this context it is pertinent to stress the role of appropriately designed representative sample surveys (stratified by region and sector), e.g., on the lines of the National Sample Survey in India and the All-India Rural Debt and Investment Surveys of the Reserve Bank of India. However, considering the expense of new surveys, and the need for a cost-effective approach it might be more fruitful to examine the scope for adaptation of existing periodic surveys of family budgets that are undertaken for revision of cost of living indices. There are no doubt considerable practicable obstacles to surveys, particularly the strong probability of inadequate responses given the inherently secretive and informal character of credit transactions.[1] There are also difficult conceptual problems in econometric modelling arising from the complex web of implicit contracts in interlocking credit, marketing, and tenancy relationships and the identification and measurement of representative rates of interest.

Since benign neglect of the informal financial sector, although widespread, can scarcely be regarded as a policy, the primary issue then is to consider whether it is desirable or feasible to control the informal financial sector. Attempts to regulate the informal sector are liable to fail because its very rationale derives from its informality and immunity from official regulation. Such regulation, which in any case would or be consistent with the growing trend towards liberalization of

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[1] For instance, a typical response was encountered by the study of private financing firms in Kerala, India which noted that "many of the firms approached were not prepared to supply information regarding their working" and even the information supplied by responding firms "did not fully reflect the actual state of affairs" (Prakash, 1984).

the formal sector itself, is more likely to be counterproductive since it may lead to the attrition of informal entities or evasion of laws without providing for adequate institutional substitutes. An instance in point is the Indian experience of the Kerala Chitties Act, 1985 whose provisions were preceived as being aimed at the foremen or organizers of these funds. Consequently, there was a decline in the number and activity of the chit funds. On the other hand, a case for some form of prudential control could be argued on grounds of protecting the interests of both lenders and borrowers and to deal with such identifiable abuses as may surface in the operations of indigenous credit unions and private finance firms, which can pose systemic risks for the safety of the financial system.[1] Consequently, the scope for judicious surveillance of the informal sector by the central bank merits careful examination.

In addition to central bank surveillance, it is equally important to examine the feasibility of providing appropriate central bank rediscount and refinance facilities for credit instruments of the informal sector. These could be subject to a guarantee by commercial banks and/or authorized brokers to ensure that it is not accommodation paper and represents genuine credit and is in accord with current credit policies of the central bank. This would obviate any risks that an uncritical extension of central bank rediscount or refinancing facilities may accentuate inflationary pressures. For this purpose it would be helpful to create a panel of guarantee brokers (i.e., like the compradores of commercial banks in South East Asia) attached to each commercial bank on a salary cum-commission basis to guarantee loans to small and risky customers. ROSCAs could also be converted into borrowing units with powers to borrow from the formal sector on the basis of group guaranteed credit. Concomitantly, the creation of a credit risk insurance system under the aegis of the central bank to insure loans to small customers (on the lines of the systems in India and Malaysia) should also be considered. This could be organized as an autonomous cor-

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[1] For instance, the closure of three finance companies in Thailand on December 16, 1983 "triggered not only a gradual decline in the system's borrowing from the public but also liquidity shortages in a number of companies especially those which were not bank affiliates. To help alleviate the problem, a liquidity fund [of B 5,000 million] under the management of the Krung Thai Bank was set up by the Ministry of Finance and the Bank of Thailand with the cooperation of the Thai commercial banks." Bank of Thailand, *Annual Economic Report*, Bangkok, 1983, p. 84. The consequential amendment of the Act relating to the Undertaking of Finance, Securities, and Credit Finance Business B.T. 2522 provided the authorities with more supervising power and increased the penalties for violations. (Ibid, p. 156).

poration, with the commercial banks as the majority shareholders, so as to reduce or eliminate problems of moral hazard inherent in any insurance system. Central banks should consider creation of special units or cells for surveillance and development of the informal financial sector. This is currently a conspicuous institutional lacuna in the developing countries.

In addition to appropriate central bank policies and facilities, the other possibilities are the creation of special grass roots institutions like the Grameen Bank in Bangladesh which "has developed rural banking institutions... which are expected to play a greater role in future by expanding its branch network and accumulating necessary funds for lending to the rural and mostly landless people".[1] It may, however, not always be practical or prudent to create new institutions. The principle of Occam's Razor--entities should not be multiplied needlessly--is perhaps as valid for institutions as it is for economic analysis. Organizational failures are no less significant than market failures, although the literature tends to emphasize the latter more. It is not always the case that "markets and organizations are substitutes and the replacement of one by the other is a common event" (Hess, 1983), since there is also an important element of complementarity between markets and institutions.

This approach need not preclude the case for extension of the branch network of commercial banks and of government and municipal pawnshops in rural areas. But it is far more important for the institutions in formal sector, particularly the rural offices of commercial banks, to adopt, through a process of conscious mimesis, more of the desirable operating features of the informal sector, notably the flexibility and informality of its lending procedures, its reliance on general credit worthiness and credit appraisal rather than on collateral, minimal documentation, flexible hours of business, and, above all, to attune the

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[1] *Annual Report 1983—84, Bangladesh Bank,* Dacca, January 1985, p. 79. The Grameen Bank was established on September 4, 1983, as an autonomous corporation with an initial paid-up capital of Tk 3.00 crores of which 60 percent is held by Government, or governmental entities, and the balance by the borrowers of the Bank. It offers group savings schemes but its main activity is to provide credit in cash or kind, with or without collateral, to landless persons for all types of business, including housing, but excluding foreign exchange transactions. As of mid-1984 the Bank has extended collateral free loans of Tk 33.61 crores to 81,296 landless people, and of this Tk 19.34 crores (about 58 percent) had been repaid in weekly installments. Generally, defaults are said to be negligible due to the specialized system of credit supervision.

social and psychological attitudes of commercial bank staff and management to the needs of the informal sector. The creation of special facilities for small savers and borrowers like the Pygmy deposits and package credits of some of the Indian banks should also be explored. Since one of the major attractions of the informal sector is its greater willingness to extend consumption credit, institutional lenders, particularly rural cooperatives, should consider earmarking a certain proportion of their credit for essential consumption purposes, on the lines of the recommendations of the Sivaraman Committee (1976) on Rural Credit in India. Thus, a positive policy agenda could be conceived as a combination of surveillance and support of the informal sector, coupled with a conscious policy of increasing the competitive efficiency of the formal sector not only through financial deepening but by the adoption of the more desirable and competitive features of the informal sector.

VIII. Conclusions: Towards an Intermediate Financial Technology

The genesis and economic rationale of the informal financial sector derives from the fact that it still provides the bulk of rural credit and of the financial requirements of small and medium business enterprises and urban households in most developing countries and fulfills many needs which are not met by the formal sector. Although this sector represents to some extent a response to the financial repression of the formal sector it is arguable that given its autonomous economic advantages of informality and its role as an integral part of a wider community of multiple interrelationships straddling credit, tenancy, and marketing it would still be a significant element of the financial system even with the maximum liberalization of the formal sector. However, informal financial units, whether proprietory or mutual, function primarily as retailer distributors of small-scale credit rather than as vehicles of savings mobilization. They are miniature currency cloakrooms or warehouses whose scale and nature precludes maturity transformation and therefore constrains efficient macroeconomic financial intermediation. Given their borrowing links with the formal sector informal credit markets do not seem, per se, to impair the efficacy of overall monetary policy in relation to the cost and volume of total credit, although they react with varying time-lags to changes in aggregative credit policy. They are, of course, not amenable to either selective credit controls or moral suasion by the central bank. On the whole, the developmental and distributive role of the informal financial sector

seems more significant than its implications for monetary policy. However, the operations of private financial firms (fringe banks) may pose problems of a prudential character for central banks. Consequently, this points to the need for judicious surveillance of the informal sector by central banks in conjunction with selective rediscount and refinancing facilities for commercial paper representing genuine productive credit generated in the informal sector. Concurrently, the formal financial sector should develop an intermediate financial technology based on the more desirable features of the informal sector so as to compete more effectively with the informal sector. To conclude, there is a strong case for the adoption of a coherent and positive policy by central banks in relation to the informal financial sector in developing countries. □

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