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INNOVATION IN LESS DEVELOPED COUNTRIES:
THE CASE OF TRINIDAD AND TOBAGO FINANCE COMPANIES

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Less developed countries typically have narrow financial structures. Impressed by the extensively documented association between financial development and economic development,¹ many of them have consciously sought to foster and encourage the development of their financial sectors. Their efforts have centered mainly on one aspect of financial development, that is, the expansion of the range of financial instruments and financial institutions.² Often, the emphasis is on the creation of government owned financial institutions directed towards specialised, long-term credit markets.³

New financial instruments and institutions are the predominant form of financial innovation in less developed countries. Innovations in financial production techniques stemming from technical advances, e.g. electronic information systems, although widespread in European and U.S. financial systems, are rare in the banking systems of developing countries. For innovations centered around new instruments and institutions, the essence of the innovations is the introduction of new financial products and changes in the production organisation of the financial services industry.

Financial innovations improve the efficiency of financial intermediation to the extent that they increase the acceptability of financial instruments, lower the costs of financial transactions, and expand the flow of financial services. In contrast, financial innovations impair the financial system and

vitiate its developmental role if they weaken public confidence in financial institutions and raise the costs of financial transactions. Thus financial innovation has the potential for being either beneficial or harmful. When there is rapid financial innovation, there is a strong possibility of considerable risk to the financial system in the absence of an effective supervisory and regulatory framework.

This paper analyses finance companies as a recent institutional innovation in Trinidad and Tobago in order to clarify some of the potentials and pitfalls of unstructured financial innovation within the context of narrow economic and financial structures.⁴ This case is particularly useful since Trinidad and Tobago, unlike many less developed countries, is well endowed with highly trained human resources, has a reasonably efficient communications system, and is closely integrated with the financial systems of Euro-America. These attributes or organisational and infrastructural strength can be expected to enhance the gains and minimize the losses from financial innovation. The existence of serious problems in this rather more favourable environment would suggest grave limitations to unstructured financial innovation in many less developed countries.

The paper will first establish the narrowness of the economic and financial structure as a backdrop to the documentation of the growth of finance companies. Next, the emergence and operations of finance companies are analyzed within the context of financial innovation theory. In those sections, the beneficial aspects of financial innovation are stressed. Later sections of the paper assess asset portfolio quality and the danger of financial ruin or bankruptcy as particular manifestations of some pitfalls

of unstructured financial innovation. Some implications with respect to regulatory supervision and the lender of last resort function are discussed in the final section.

NARROWNESS OF THE ECONOMIC AND FINANCIAL STRUCTURES

Trinidad and Tobago is a middle-income oil exporting developing economy with gross domestic product in 1980 prices of US \$2,786 million or \$2,611 per capita. Between 1970 and 1980, the annual growth rate of real GDP averaged 4.8%. The production structure is quite narrow. The four largest sectors in a ten-sector classification of constant price gross domestic product accounted for 63 per cent of gross domestic product in 1970 and 60 per cent in 1980. The narrowness persisted, despite substantial shifts in the shares of specific sectors. In 1970, the four largest sectors were Mining (21%), Distribution (19%), Transportation and Communication (14%), and Manufacturing (9%). In 1980, Transportation and Communication emerged as the largest sector (20%), followed by Distribution (16%), Mining (13%), and Financial Services (11%).

The financial structure is also narrow, despite the tremendous growth in the financial system between 1970 and 1982. Over that period, the current price value of total financial assets in the financial system increased from TT \$1,087 million to TT \$19,314 million, with most of the growth taking place after 1973 (the year of the first oil shock).⁵ In 1970, six expatriate banks which comprised the commercial banking industry held 41% of total assets within the financial system. Non-bank financial intermediaries (numbering no more than thirty) accounted for a further 46%, and the Central Bank for 13%. By the end of 1982, the commercial banking industry,

which then consisted of eight banks (of which two were indigenous) held 44% of total assets within the financial sector. The Central Bank's share accelerated to 41%, mainly as a result of foreign exchange accruals from balance of payments surpluses. The number of non-bank financial intermediaries increased to 48 ; nonetheless, their share of total assets declined to 15 per cent.⁶ Evidently, a few types of institutions predominate in the financial system of Trinidad and Tobago. A narrow range of financial instruments is also predominant. Bank loans and deposits are the main financial instruments, with corporate securities and government securities being relatively insignificant.⁷

GROWTH OF FINANCE COMPANIES

Generically, finance companies are non-bank financial intermediaries. They incur deposit liabilities which they transform into earning assets. Unlike commercial banks, they do not provide chequing facilities. They tend to be relatively specialized lenders, typically not providing the extensive range of non-credit services offered by commercial banks, but also performing some functions not usually performed by commercial banks. Thus, for instance, finance companies offer lease/rental services; commercial banks do not. Finance companies do not perform foreign exchange payment functions, trustee functions, nor contractual payment functions on behalf of customers; commercial banks do. In Trinidad and Tobago, finance companies are limited liability companies (private and public).⁸

Finance companies are a relatively new type of financial intermediary in Trinidad and Tobago. At the end of 1983, there were 14 companies in operation, most of which were established during the second half of the 1970's.

are not of major quantitative significance. However, the nature of their credit activities and their fragility gives them a qualitative importance far greater than their relative asset size.

Finance companies, having made their appearance in Trinidad and Tobago towards the end of the 1960's, grew moderately between 1970 and 1974. Total assets increased from TT \$17 million to TT \$22 million (Table 1, Column 1). This growth depended initially on loans from other financial institutions. Deposit liabilities averaged only 45 per cent of total liabilities between 1970 and 1973. Net balances due to local banks and other financial institutions comprised the remainder.

The industry expanded rapidly after 1974. Total assets increased at an average annual rate of 40% from TT \$72 million in 1975 to TT \$1,058 million in 1978 (Table 1, Column 1). Deposit mobilization was particularly successful. Deposit liabilities increased by a multiple of 18 within the 14-year period, amounting to TT \$980 million at the end of 1983 (Table 1, Column 2). As a consequence of this rapid deposit growth, finance companies ceased to rely on other financial institutions for loanable funds. Instead, their liabilities were almost exclusively deposit liabilities. There was a counterpart growth in credit extended by finance companies.

DEPOSIT MOBILIZATION

The household sector is the largest source of deposit balances. Their share of deposit liabilities averaged 73% between 1970 and 1974, and then having fallen to an average of 49% during the next two years, recovered to average 61% between 1977 and 1983. The next main deposit source is

TABLE 1: TOTAL ASSETS AND DEPOSIT LIABILITIES
OF FINANCE COMPANIES : 1970-1983 (TT \$mm)

<u>END OF PERIOD</u>	<u>TOTAL ASSETS AT</u> <u>CURRENT PRICES</u>	<u>TOTAL DEPOSITS</u> <u>AT CURRENT PRICES</u>
1970	17	8
1971	17	7
1972	26	11
1973	26	13
1974	22	21
1975	72	54
1976	100	83
1977	143	118
1978	249	191
1979	285	226
1980	413	321
1981	576	512
1982	905	801
1983	1058	980

SOURCE: Central Bank of Trinidad and Tobago Annual Reports.

the corporate sector whose percentage share has been much less stable than that of the household sector. In 1970, the corporate sector accounted for 35% of the deposit liabilities of finance companies. The share decreased to an average of 23% between 1971 and 1974. It then rose sharply in 1975, averaging 44% between 1976 and 1978. Subsequently, there was a sharp reduction in the percentage share of the corporate sector to 22% in 1979, 27% in 1980, and 12% in 1983. The public sector having held as much as 12% of the deposit liabilities in 1979 became a negligible deposit source thereafter. Other private financial institutions supplied an average 7% of deposits. A miscellany of other depositors provided a further 10% between 1980 and 1983.

Success in deposit mobilization was not due to any innovation in the form of new savings instruments. Finance companies offered time deposit instruments, but this type of savings asset had been introduced by the commercial banks during the mid-1960's. The growth of deposit liabilities is explained more in terms of the unprecedented massive growth in national income which raised personal wealth and increased interest income consciousness. Finance companies engaged in vigorous interest rate competition against the commercial banks and the other non-bank financial intermediaries. The Financial Institutions (Non-Banking) Act which governs the operations of finance companies prohibits them from accepting deposits with maturity less than one year. Therefore, the relevant interest rate comparison is between their one-year deposit rate of interest and the commercial bank one-year time deposit rate of interest. These details are contained in Table 2. By comparison of Columns 1 and 2, it is readily seen that finance companies offered rates of interest that were considerably above those on commercial bank

deposits. In 1979, the interest rate differential was approximately 1.6 index points; by the end of 1983, it had widened to almost 3 index points.

The relative importance of finance companies in the private financial system increased as a consequence of their deposit growth. In 1973, finance companies accounted for less than two per cent of deposit liabilities and five per cent of credit in the private financial system. By the end of 1983, their shares had risen to 11% and 13% respectively (Table 3, Columns 1 and 3). Moreover, finance companies become the major force in the non-bank financial intermediaries sub-sector. Their share of deposit liabilities among non-bank financial intermediaries increased from 27% in 1975 to 47% in 1982, and their share of credit from 28% to 48% (Table 3, Columns 2 and 4). The increased relative size of finance companies guaranteed that their deposit and credit transactions would have at least a modest influence on those kinds of transactions within the financial sector as a whole and particularly within the non-banking sub-sector. As discussed later, the growth of finance companies also caused quality changes within the financial services industry.

FINANCE COMPANIES IN THE CONTEXT OF INNOVATION THEORY

Financial innovation may be defined as the introduction of a new financial product or a new technique of production in the financial services industry. This definition is Schumpeterian. Dealing with the case of commodity production, Schumpeter (1934, p. 66) defines innovative activity in terms of the introduction of a new good, or a new method of production, the opening of a new market, the control of a new source of production inputs, and the adoption of a new organisational form or structure.

TABLE 2.: NOMINAL DEPOSIT RATES OF INTEREST:
COMMERCIAL BANKS AND FINANCE COMPANIES

<u>END OF PERIOD</u>	<u>COMMERCIAL BANK 1-YEAR TIME DEPOSIT RATE (%)</u>			<u>FINANCE COMPANI. 1-YEAR TIME DEPOSIT RATE %</u>		
	MIN.	MAX.	MEDIAN	MIN.	MAX.	MEDI
1979	5.0	9.0	7.88	5.00	10.50	9.50
1980	7.0	9.25	7.88	7.00	15.00	10.50
1981	7.5	10.00	8.25	9.00	15.00	10.50
1982	8.0	10.00	8.50	9.00	16.00	12.75
1983	8.0	10.00	9.25	10.00	16.00	13.88

SOURCE: Central Bank of Trinidad and Tobago Annual Report.

TABLE 3 : RELATIVE DEPOSIT AND CREDIT SIZE OF
FINANCE COMPANIES : 1973-1983

<u>END OF PERIOD</u>	<u>DEPOSIT SHARE (%) AMONG</u>		<u>CREDIT SHARE (%) AMONG</u>	
	<u>PRIV. FIN. INSTNS</u>	<u>NON-BANKS</u>	<u>PRIV. FIN. INSTNS</u>	<u>NON-BANKS</u>
1973	1.6	-	5.1	-
1974	1.9	-	4.1	-
1975	3.8	27.4	5.4	28.2
1976	4.4	33.1	6.5	33.9
1977	5.0	34.3	7.4	38.2
1978	6.2	35.6	9.6	44.3
1979	5.6	36.6	9.0	40.5
1980	6.9	36.5	9.7	40.6
1981	8.6	41.9	10.5	40.7
1982	10.0	47.2	12.3	48.4
1983	10.7	44.5	12.7	46.0

SOURCE: Computed on basis of data in Central Bank of Trinidad and Tobago Annual Report, and Republic of Trinidad and Tobago Review of the Economy (Annual).

Examples of product innovation within the financial services industry are the introduction of negotiable certificates of deposits, and financial futures. In the context of developing economies, term lending and rental/lease activities qualify as innovations because they are services not previously offered by traditional formal financial institutions. Examples of production technique innovation are computerized banking and automatic teller machines.

Financial innovations in developing countries tend to be imitative and adaptive. Innovations are transferred, sometimes after modification, from developed countries usually with considerable time lags. Whether imitative or genuinely creative, financial product innovation extends the range and may improve the quality of financial services available to transactors in less developed countries. Innovations in financial production technique may improve the efficiency of production by lowering unit costs of production.

The stimuli to financial innovation are quite varied. Fundamentally, however, innovations are caused by economic incentives. Kane (1981) identifies regulatory constraints as the stimuli for technological innovation in the U.S. banking industry. Financial firms innovate to minimize costs imposed by regulatory constraints. Silber (1975) advances the more general hypothesis that financial innovations in the form of new instruments or practices are intended to lessen financial constraints imposed on firms. Constraints may be internal, e.g. insufficient retained earnings relative to desired investment outlays, or external, e.g. credit ceilings and legal reserve requirements. Within Silber's theoretical framework, "the stimulus to innovation can be interpreted as an increase in the costs of adhering to existing con-

straints", (Silber 1981, p. 90). Financial innovation may also be stimulated by identifiable profit opportunities resulting from commodity gaps in the financial services industry. In other words, financial firms may innovate in response to unfulfilled demands for some kinds of financial services.

Two types of stimuli can be identified in the case of Trinidad and Tobago finance companies. One is the profit opportunity associated with unfulfilled demands for consumer loans and long-term credit. These credit instruments are perceived by the large commercial banks which predominate in formal credit markets as riskier, though higher yielding, than short term self-liquidating loans, especially to the commercial sector. Theoretically, large oligopolistic banks may be expected to trade off higher expected profits against less uncertainty. That is, "a significant portion of potential profits latent in a firm's position of market power is taken in the form of avoiding uncertainty..." (Edwards and Heggstaad, 1973). This theoretical proposition seems valid for Trinidad and Tobago until a few years after the emergence of finance companies. The risk avoidance behaviour of the banks resulted in specific financial services gaps which finance companies were created to fill. As evidenced in the next section of this paper, their credit activities were concentrated in the long-term end of the market and in consumer credit.

The commercial banks did not remain passive. Bank portfolio behaviour altered to include significant lending to previously neglected areas. Personal loans increased from average 32% of total loans between 1970 and 1974 to average 43% between 1975 and 1978. Mortgage loans which were only 1% of total bank assets in 1971 averaged almost 3% between 1973 and 1979 and were as much as 5% in 1983. This change in lending behaviour was prompted by the

competitive challenge and the demonstration of profitability presented by the innovative behaviour of the finance companies. Another reason was the unprecedented build-up in excess liquidity between 1974 and 1977.⁹ The growth in surplus credit capacity pressured bank profitability and forced a liberalisation of credit standards.

Towards the end of the 1970's, the commercial banks' response had extended to their own establishment of finance companies independently or in partnership with other firms in the financial and non-financial sectors.¹⁰

The second kind of stimuli to finance companies qua financial innovation may best be described under the rubric of "captive finance subsidiary". Roberts and Viscione (1981) defines a captive finance subsidiary as "a wholly-owned subsidiary, established most frequently by manufacturing or retailing firms, to provide wholesale financing for dealers and distributors of the parent firm's products and/or to purchase installment receivables created by retail sales of the parent's products". In Trinidad and Tobago, finance companies have been established not only by manufacturing enterprises, but also by enterprises whose primary activities are in the commerce and construction sectors. Another point of difference is that ownership is frequently shared among several enterprises. A profile of ownership is provided in Table 4.

Captive finance companies have been established in Trinidad and Tobago to perform one or more well defined functions: to mobilize funds for the parent or affiliated companies; to finance the credit sale transactions

TABLE 4 : OWNERSHIP PROFILE OR FINANCE COMPANIES IN 1982

<u>NAME OF FINANCE COMPANY</u>	<u>TOTAL ASSETS</u> \$m	<u>MAJOR STOCKHOLDERS</u>	<u>PRIMARY ACTIVITIES OF MAJOR SHAREHOLDER</u>
1. TRINFINANCE	19.2	National Commercial Bank; Citibank	Commercial Banking
2. AMALGAMATED FINANCE COMPANY LTD.	49.2	Republic Bank; F. George Huggins & Company; T. Geddes Grant (T'dad) Ltd; Charles McEneaney & Co. Ltd.	Commercial Banking, Commerce Manufacturing
3. GENERAL FINANCE CORPORATION LTD.	205.6	Neal and Massey Ltd; Royal Bank of Trinidad and Tobago Ltd.	Manufacturing, Commerce, Commercial Banking
4. SOUTHERN FINANCE COMPANY LTD.	9.1	Individuals	Manufacturing, Commerce
5. INTERNATIONAL TRUST LTD.	164.7	Carifinance Ltd;	Commerce, Construction, Insurance
6. TRADE CONFIRMERS LTD.	292.9**	Kirpalani's Ltd.	Commerce, Printing
7. COMMERCIAL FINANCE COMPANY LTD.		Individuals	
8. SWAIT		Individuals	Manufacturing, Commerce, Real Estate, Tourism
9. MATT SECURITIES LTD.	12.1*	Colfire Ltd. and Colonial Life Insurance Ltd.	Life and General Insurance
10. SUMMIT FINANCE COMPANY LTD.	41.4	Motilal Moonan Ltd.	Construction
11. CARIBBEAN MORTGAGE AND FUNDS FINANCE COMPANY		Amar	Manufacturing, Commerce
12. CARIBBEAN FINANCE CO.		Bank of Nova Scotia	Commercial Banking
13. REPUBLIC FINANCE COMPANY LTD.	198.7	Republic Bank	Commercial Banking

NOTES: * June 1981
** April 1983

of the parent or affiliated companies; and to shift credit risks from the parent or affiliates to the finance company, thereby insulating the former and improving their credit standing.¹¹ With the first and second of these functions, the financial soundness of the finance company is dependent on the financial health of the parent or affiliates. With the third function, bankruptcy of the finance company does not imperil the parent nor the affiliate.

In terms of innovation theory, the importance of these functions is that they constitute a means of relaxing financial constraints imposed on the parent or affiliate. With respect to the first function, loan capital (in the form of rechannelled deposits) is obtained without the financial scrutiny usually associated with arms-length financial transactions between a financial intermediary and its credit customer. By utilising the device of captive finance companies, enterprises are able to obtain greater external funding than may be warranted by their financial performance and than would be provided by independent financial intermediaries. The second function ensures that liquidity constraints on the ability of the parent or affiliate to grant trade credit does not hinder the growth of sales. The captive finance company provides the supply of credit complementary to commodity sales. The third function, by reducing asset risks for the parent (or affiliate), enhances its ability to obtain loan and equity capital.

Two potentially beneficial aspects of the operations of finance companies can be enumerated at this stage. One pertains to the broadening of the financial structure in terms of longer maturities, the incorporation of previously excluded financial transactors into the formal financial sector, and the intro-

duction of a new array of non-financial services. Insofar as these activities improve the efficiency of financial intermediation, finance companies as financial innovators may be beneficial. The other potentially beneficial aspect stems from the relaxation of the external finance constraint on the investment and production performance of non-financial corporations. Relaxation of these constraints may, in some situations, improve the quantity and the quality of aggregate investment and thereby contribute to economic growth. As demonstrated by Gurley and Shaw (1960), Spellman (1976), and others, financial intermediation may achieve a more efficient global (i.e. economy-wide) allocation of capital to the extent that it reallocates investible resources from enterprises with surplus capital but low rate of return investment opportunities to those enterprises characterized by capital deficiency and high economic rates of return.

ASSET PORTFOLIO COMPOSITION AND QUALITY

Accrual of the potential benefits identified in the previous section depends critically upon the quality of finance companies' asset-portfolios. Poor quality assets imply inefficient financial intermediation and vitiate their ability to either offer an improved menu of financial services or to relieve external financial constraints on non-financial enterprises.

LIQUIDITY AND CREDIT

On an industry basis, practically all financial resources mobilised by finance companies are transformed into private sector credit. In 1982 and 1983, private sector credit averaged 96 per cent of their total assets. Liquid assets, the only other component, were a negligible proportion.

Because consolidated industry statistics conceal a great deal of inter-firm differences, it is useful to examine firm-level liquidity data. These are presented in Table 5. It can be seen that several firms maintain extraordinary low ratios of liquid assets to total assets. Almost all of their resources are tied up in credit to customers. The firms in precarious liquidity situations tend to be those not associated with commercial banks.

Another revealing way of analysing the asset structure of finance companies is in relation to solvency requirements. Statutorily, finance companies are required to observe certain norms with respect to their assets and liabilities. Until March 1983, they were required by a law enacted in 1979 to maintain liquid assets no less than three per cent of total deposit liabilities. Subsequently, the minimum requirement was raised to five per cent. This legal stipulation is intended to ensure adequate liquidity for meeting normal currency demands of depositors. In actuality, some finance companies breached the requirement while others operated with liquidity considerably in excess of the legal requirement. Table 5 shows the data for selected firms. Because liquid assets provide an important line of defence against deposit runs, the extremely low liquid ratios exhibited in Trinidad and Tobago connote financial fragility among several finance companies.

This fragility is underscored by low capitalization. If capital is adequate, it can be drawn upon to supplement liquid assets in situations of abnormal deposit withdrawals. In terms of the statutory regulations, the minimum capital requirement is that paid up capital and reserve funds be not

less than five per cent of total deposit liabilities. Several of the finance companies operate very close to this statutory minimum, as can be seen from Table 5. Similar to the liquidity situation; finance companies affiliated to commercial banks are those which maintain conservative ratios of capital to deposits. Other indicators of capital adequacy tell much the same story. For instance, the ratio of gross capital to risk assets is about 6 to 7 per cent for non-affiliates of commercial banks and 20 to 27 per cent for bank affiliates.

Several empirical U.S. studies (e.g. Korobow, Stuhr and Martin (1977), Sinkey (1977) have confirmed the importance of liquidity and capital adequacy for the viability of financial intermediaries, particularly their ability to withstand deposit runs and asset portfolio losses. Postponing temporarily the matter of asset losses, the facts of minimal liquidity ratios and capital adequacy ratios in a context of a primarily long-term asset portfolio prompt considerable misgivings about the quality of financial management.

RISK ASSETS

The main category of earning assets is loans and advances. These comprise between 75 per cent and 83 per cent of earning assets for the major finance companies in 1982. Previously, the proportion was close to 100 per cent. The remaining earning assets are physical capital and equipment leased to customers and equity investment in other companies.

A breakdown of loan accounts receivable is provided on a consolidated industry for 1981 to 1983. This information presented in Table 6 helps to identify the major sectoral categories of debtors. The largest recipients of credit are

TABLE 5 : LIQUIDITY AND CAPITAL ADEQUACY RATIOS : SELECTED YEARS

<u>FIRM AND YEARS</u>	<u>LIQUIDITY AS % OF:</u>		<u>CAPITAL & RESERVES AS</u>	
	<u>TOTAL ASSETS</u>	<u>DEPOSITS</u>	<u>DEPOSITS</u>	<u>RISK AS</u>
<u>TRINFINANCE</u>				
1981	17	20	14	20
1982	26	33	17	27
<u>AMALGAMATED</u>				
1981	29	34	17	5
1982	36	4	23	8
<u>GENERAL FINANCE</u>				
1981	3	3	8	5
1982	3	3	8	6
1983	4	5	9	8
1984	6	7	9	9
<u>REPUBLIC FINANCE</u>				
1981	10	10	6	5
1982	22	24	8	3
1983	16	18	8	8
1984	9	10	8	8
<u>SUMMIT FINANCE</u>				
1981	1	1	5	4
1982	5	5	5	5
<u>INTERNATIONAL TRUST</u>				
1981	2	3	9	8
1982	2	3	5	6
<u>SOUTHERN FINANCE</u>				
1982	4	4	9	9
1983	8	9	6	6
<u>MATT SECURITIES</u>				
1981	12	16	16	8

SOURCE: Published Financial Statements of Finance Companies.

NOTE: Reporting dates are not uniform for each company.

the construction sector, the personal sector, distributive trades, and the transportation, storage and communication sectors combined. Credit to the manufacturing sector comprises 10 per cent. Agriculture hardly has any significance, accounting for less than 2 per cent of total loans. Credit to the business sector as a whole averaged 76 per cent of total loans between 1981 and 1983.

The data in Table 6 excludes real estate mortgages. Data from the national Flow of Funds accounts published by the official Central Statistical Office reveal that mortgage loans to the corporate sector were roughly equal in value to loans to the personal sector until 1975 when the ratio shifted to 1:2. However, if the latter proportions persisted beyond 1978 (the last year of the Flow of Funds data), the corporate sector's share of all forms of credit would have to be revised only slightly since real estate mortgage loans constituted 9 per cent of total private sector credit in 1981 and slightly less than 2 per cent in 1982 and 1983.

The configuration of risk assets contains incipient dangers to the solvency of some finance companies. Solvency problems arise when net worth tends towards zero. Because finance companies are heavily leveraged, slight reductions in capital values of earning assets will have pronounced effects on net worth. There are strong indications that credit operations engender substantial capital risk. Incipient solvency problems are therefore not to be taken lightly.

One indication is the concentration of assets in cyclically sensitive sectors such as the construction sector and the household sector. Their repayment capacity is seriously eroded during economic downswings. Furthermore, realizable value of collateral tends to decline. Because as much as 48 per cent of the

TABLE 6 : SECTORAL PERCENTAGE COMPOSITION OF ACCOUNTS RECEIVABLES
AT DECEMBER 31

<u>SECTOR</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
1. Mining & Quarrying	5	3	3
2. Manufacturing	11	10	11
3. Distributive Trades	18	15	17
4. Transportation, Storage and Communication	16	19	15
5. Agriculture	1	2	1
6. Construction	27	30	26
7. Personal	17	17	22
8. Other	<u>5</u>	<u>4</u>	<u>6</u>
ALL	<u>100</u>	<u>100</u>	<u>100</u>

SOURCE: Central Bank of Trinidad and Tobago Quarterly Economic
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earning asset portfolio is allocated to the personal and construction sectors, the overall asset portfolio is structurally weak. Some of these difficulties have been revealed by the experience of Southern Finance Company which suspended credit operations in 1983. The Management of the company attributed its loan delinquency problems to the loss of employment by household debtors and to the depression in the construction industry.

Another indication is some finance companies' acute concentration on a few activities and enterprises. In 1981, finance companies associated with manufacturing and distribution conglomerates allocated between 30 per cent and 90 per cent of their loan funds to affiliates. This behavioural pattern is linked with the practice of portfolios undiversified either with respect to number of transactors or range of transactions. For example, in 1983 one finance company devoted all its equity investment to one (related) firm and lent 40 per cent of its credit portfolio to the construction industry. Another finance company's credit to group debtors comprised 29 per cent of its risk assets in 1982 and 1983, and 31 per cent in 1984.

The collapse of International Trust Ltd. (a large finance company) in 1983 and subsequent testimony at the judicial liquidation proceedings reveal starkly financial mismanagement associated with some finance companies. The Chairman of I.T.L. conceded in testimony that he was himself a substantial owner of equity in four major corporate credit recipients. Furthermore, these credit customers had little realizable collateral. I.T.L. experienced serious loan delinquency. In 1982, doubtful and bad debts were 32 per cent of total loan balances.

The excessive concentration of credit portfolios is partly the outcome of the "captive finance" nature of several finance companies. The portfolio weaknesses associated with "captive finance" are thus properly treated as a cost of this particular kind of financial innovation.

The problems identified do not apply to all finance companies. Those finance companies affiliated with commercial banks or with long established and financial strong manufacturing and commercial enterprises have tended to manage their risk assets prudently. They also have access to the financial resources of their affiliates.

It can be argued that finance companies pursued high risk-high return policies. Profitability measured by post-tax income as a percent of shareholder equity ranged between 20% and 40% for the leading companies during the 1980 to 1982 period. Such a view has to be tempered, however, by the observation that commercial banks experienced equally high profitability.

The material presented in this section of the study leads to the conclusion that credit operations of finance companies contain several important pitfalls. For most of its operational life, the finance company industry has been unregulated. The basic law governing their liability and asset portfolio operations, i.e. the Financial Institutions (Non-Banking) Act was not legislated until 1979, almost ten years subsequent to the establishment of the industry. By the time the law was enacted, many finance companies were already mismanaged. In this respect, it can be argued that the portfolio weaknesses analyzed are evidence of some pitfalls of unregulated financial innovation.

LENDER OF LAST RESORT AND REGULATORY IMPLICATIONS

Two finance companies have had their operations suspended. Two others had recourse to Central Bank credit in 1984. These developments have grave implications for the financial system. The publicised difficulties of the "problem" finance companies have weakened depositor confidence. On several occasions, depositors have sued for repayment of matured deposits. Deposits at finance companies declined by 8 per cent between September 1983 and September 1984, in comparison with slow growth for other non-bank financial institutions. It was contended earlier that not all finance companies are weak and endangered. Thus, not all depositors need fear, if only the information were available. However, because depositors are not generally well-informed about the financial situation of finance companies, the risk of contagion is real. It is this risk which provides the case for lender of last resort activities.

Solow (1982) maintains that "a confidence worthy and confidence inspiring monetary-financial system is a public good", (p. 241). The function of the lender of last resort is to prevent "the monetary-financial system from being forced into undesirable deflationary pressure by epidemic loss of confidence in its soundness" (p. 247). It can do so by "visibly providing ample credit to keep the weaker links... (of the system)..... from giving way", (p. 238). The Central Bank of Trinidad and Tobago certainly acted to avert an epidemic crisis of confidence. In April, 1984 it established a \$50 million liquidity support facility. Credit resources were also made available from reserve accounts and from the Bank's own reserves. Within six months cumulative assistance amounted to \$57 million.

These lender of last resort facilities are subject to a few limitations. One such limitation is the tendency of lender of last resort facilities to create problems of moral hazard. By "moral hazard" is meant the consequential increase in the probability of the event being insured against. In other words, financial institutions, encouraged by the existence of a lender of last resort, may assume greater portfolio risks. Limits and conditions of access must, therefore, be attached to credit from the facility.

Another important consideration is the need to couple lender of last resort functions with effective regulation and supervision. Although, the Financial Institutions (Non-Bank) Act does set legal norms for observance by finance companies, these have been evaded by several firms. Without effective supervision, portfolio weaknesses will be undetected. Demands on the lender of last resort funds may prove excessive. The lender of last resort may then find itself in the morally indefensible position of encouraging over-exposure at public expense. Effective supervision in the context of Trinidad and Tobago requires not only well-functioning financial and economic information systems, but most important, a system of company law that permits legal sanctions against management to supplement the traditional central banking powers of suspension of business.

CONCLUSIONS

This study of finance companies in Trinidad and Tobago analysed their growth and operations within the framework of the theory of financial innovation. It was shown that as financial innovators, finance companies can confer several important benefits in the financial sector of developing countries. In these countries, where the private financial sector is dom-

inated by commercial banks, typically of expatriate origin, portfolio policies and interest rate policies tend to be very conservative. Credit policies are biased towards short term, self-liquidating commercial loans, and deposit rates of interest are low. The banks trade off greater rates of return for lower risks. As a consequence, there is a void for long-term credit and for credit to emergent sectors and enterprises. Finance companies directly and indirectly contribute towards filling that void. Their own credit flows as well as the competitive pressure exerted on the commercial banks have resulted in a lengthening of the maturity structure of credit and in expanded access by potential borrowers previously excluded from the formal financial market.

Several dangers are associated with finance companies. Largely because of the close ownership affiliation with enterprises whose primary activities are in other fields, some asset portfolios are excessively concentrated and have tended not to take sufficient cognisance of sound loan practices. Furthermore, capital adequacy ratios and liquidity ratios are dangerously low.

The asset portfolio weaknesses arose in the absence of effective regulation and supervision of finance companies. With a properly functioning lender of last resort and regulatory agency, the potential benefits of the finance company industry can be maximised and the dangers reduced to manageable proportions.

NOTES

1. Influential references are Gurley (1955), Goldsmith (1969), and Patrick (1966). Caribbean Studies include Odle (1972), Worrell and Prescod (1983), and Bourne (1982).
2. New types of financial institutions include specialised long-term credit institutions and capital market institutions such as stock exchanges and unit trusts. The range of new instruments encompasses time deposits, negotiable certificate of deposits, corporate stocks, and government equity.
3. The spread and operations of government owned development banks and other specialised financial institutions has been extensively studied. See, for example, Bourne (1981), Kane (1975), Diamond (1957), Von Pischke (1981), and Bourne and Graham (1984).
4. Finance companies have not attracted much academic attention. A good recent study is Nayar's (1982) work on India.
5. At official parities, US \$1.00 was worth TT \$2.00 in 1970 and TT \$2.40 in 1980.
6. In 1982, there was 22 Life Insurance Companies, 6 Trust Companies, 5 Thrift Institutions, 2 Development Banks, 10 Finance Companies, and 3 Mortgage Finance Companies.
7. In 1978, bank loans and advances comprised 16% of financial assets, deposits 30%, corporate shares and securities 5%, and government securities 2%. Foreign instruments held by the Central Bank and by private investors comprised 23%.
8. In other countries, this form of corporate organisation may be the exception. In India, most finance companies are partnerships (Nayar 1982, p. 7).
9. Commercial banks were statutorily required to hold liquid assets, defined as vault cash, special deposits with the Central Bank, Treasury Bills, and short-term government securities, equivalent to not less than 14% of total deposit liabilities. Between 1974 and 1977, actual liquidity varied between 38% and 30%.
10. In 1982, commercial banks owned substantial equity in two of the largest finance companies, and totally owned another large finance company.
11. These functions have been identified in the case of US captive finance companies by Roberts and Viscione (1981).
12. In 1983, Southern Finance Company, another much smaller company reported doubtful and bad debts equivalent to 57 per cent of total loan balances.

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REFERENCES

1. BOURNE, Compton : "Issues of Public Financial Enterprises in Jamaica : The Case of the Jamaica Development Bank", *Social and Economic Studies* 30, 1, March, 1981: 197-208.
2. _____ : "Notes on Financial Changes in Trinidad and Tobago : 1966-78", *Social and Economic Studies* 31, 4, December, 1982.
3. _____ and GRAHAM, Douglas H. : "Problems with Specialized Agricultural Lenders", pp. 36-48 in Dale W. Adams et al (eds.), *Undermining Rural Development with Cheap Credit* (Boulder, Colorado, Westview Press, 1984).
4. DIAMOND, William : *Development Banks* (Baltimore, John Hopkins Press, 1957).
5. EDWARDS, Franklin R. & HEGGESTAAD, Arnold A. : "Uncertainty, Market Structure and Performance : The Galbraith-Caves Hypothesis and Managerial Motives in Banking", *Quarterly Journal of Economics*, 88, 1973 : 455-473.
6. GOLDSMITH, Raymond W. : *Financial Structure and Development* (New Haven, Yale University Press, 1969).
7. GURLEY, John G. : "Financial Aspects of Economic Development", *American Economic Review*, 45, 1955: 515-538.
8. GURLEY, John G. & SHAW, Edward S. : *Money in a Theory of Finance*, (Washington, D.C., Brookings Institution, 1960).
9. KANE, Edward J. : "Policy Implications of Structural Changes in Financial Markets", *American Economic Review*, 73, 2, 1983: 96-100.
10. KANE, Joseph A. : *Development Banking* (Massachusetts, Lexington Books, 1975).
11. KOROBOW, Leon, STUHR, David & MARTIN, Daniel : "A Probabilistic Approach to Early Warning Changes in Bank Financial Conditions", pp. 9-23 in Edward I. Altman and Arnold W. Sametz (eds.), *Financial Crises: Institutions and Markets in a Fragile Environment* (New York, John Wiley and Sons, 1977).

REFERENCES (Cont'd.)

12. NAYAR, C.P.S. : "Finance Corporations : An Informal Financial Intermediary in India", Savings and Development, 6, 1, 1982: 5-40.
13. ODLE, Maurice : The Significance of Non-Bank Financial Intermediaries in the Caribbean (Kingston Jamaica, Institute of Social & Economic Research, University of the West Indies, 1972).
14. PATRICK, Hugh T. : "Financial Development and Economic Growth in Underdeveloped Countries", Economic Development and Cultural Change 14, 2, 1966: 174-189.
15. ROBERTS, G.S. & VISCIONE, J.A. : "Captive Finance Subsidiaries and the M-Form Hypothesis", The Bell Journal of Economics, 12, 1, 1981: 285-295.
16. SCHUMPETER, Joseph A. : The Theory of Economic Development (Cambridge, Massachusetts, Harvard University Press, 1934).
17. SILBER, William : "Towards a Theory of Financial Innovation in his Financial Innovation (Lexington: D.C. Heath and Co., 1975).
18. SILBER, William : "The Process of Financial Innovation", American Economic Review, 73, 2, 1983: 89-95.
19. SINKEY, Joseph E. : "Problem and Failed Banks, Bank Examination and Early Warning Systems: A Survey", in Edward I. Altman and Arnold W. Sametz (eds.), op. cit.
20. SOLOW, Robert M. : "On the Lender of Last Resort", pp. 237-248 in Charles P. Kindleberger and Jean Pierre Laffargue (eds.), Financial Crises: Theory, History and Policy (New York, Cambridge University Press, 1982).

REFERENCES (Cont'd.)

21. SPELLMAN, Lewis J. : "Economic Growth and Financial Inter-mediation", pp. 11-22 in Ronald I McKinnon (ed.); Money and Finance in Economic Growth and Development (New York, Marcel Dekker, Inc., 1976).
22. VON PISCHKE, J.D. : "The Political Economy of Specialized Farm Credit Institutions in Low Income Countries", World Bank Staff Working Paper, No. 446, April 1981.
23. WORRELL, DeLisle & PRESCOD, Ronald : "The Development of the Financial Sector in Barbados 1946-1982", Central Bank of Barbados Economic Review, 10, 2, 1983: 9-26.