XXVI ANNUAL CONFERENCE OF THE

REGIONAL PROGRAMME OF MONETARY STUDIES

THE COMMERCIAL BANKING INDUSTRY 1986-1992: SOME ISSUES OF EFFICIENCY

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JAMAICA CONFERENCE CENTRE

KINGSTON, JAMAICA, W.I.

November 23 - 26, 1994

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Paper presented at the Regional Programme of Monetary Studies Conference, Kingston, Jamaica
November 23-26, 1994

RESEARCH DEPARTMENT
CENTRAL BANK OF TRINIDAD AND TOBAGO

NOVEMBER 1994

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INTRODUCTION

Commercial banks are unique within the structure of any financial system. Through their distinct power to create credit they stand apart from other financial institutions. In Trinidad and Tobago they have become the behemoths of the financial system and are by far the largest mobilizers of savings and providers of loan funds. They account for close to 40 percent of the total assets of the financial system and for more than one half the financial savings of the domestic economy.

As a result of the preponderance of commercial banks in the local financial system, varying aspects of their behavior have been the subject of detailed study and analysis. Among the more recent studies are the works of Ramkissoon (1982) and Bourne (1988). The former concentrated on commercial banks asset portfolio behavior while the latter looked at the institutions' structure and performance over the period 1965-1982.

This study of the commercial banking industry covers a later period, 1986-1992, and looks at both the macro and micro performance of commercial banks. As a preamble to this, a brief historical review of commercial banks in Trinidad and Tobago is given as Section I. In Section II the performance of the industry as a whole is analyzed in the context of the wider economic environment, while Section III focuses on some intra-industry comparisons across

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relevant sub-sets of the industry. Section IV summarizes the paper and provides some concluding remarks.

SECTION I
HISTORY OF COMMERCIAL BANKS IN TRINIDAD AND TOBAGO

The history of commercial banks in Trinidad and Tobago began in 1837 with the establishment of the Colonial Bank. Prior to the establishment of this institution all necessary banking transactions were conducted in Britain. At the turn of the twentieth century the growth in the nexus of trade between Canada and Trinidad and Tobago saw the introduction of Canadian banks. However, it was not until the period 1954 to 1965 that the inflows of capital from North America began to take place mainly to finance the exploration and production of oil and the industrial development programmes of the government. This consequently led to the establishment of North American banking institutions in the country.

In the Third Five Year Development Plan (1969-1973) following the country's attainment of Independence in 1962, the government enunciated a policy to encourage foreign banks to incorporate locally by offering their shares to nationals. The eruption of social unrest in the form of the so called 'Black Power' demonstrations in 1970 hastened the implementation of the plan and by 1971 the Bank of Nova Scotia, Barclays Bank and the Royal Bank of Canada had incorporated local companies to handle their local operations. In 1973 all three banks made their first share issues to the local public. Five years later, the Bank of Commerce Trinidad and Tobago Limited was incorporated and in May 1980 this Bank announced its maiden share issue. The American banks however, resisted attempts at localization until both banks, Chase Manhattan and Citibank were given the ultimatum to incorporate locally or have restrictions placed on their operations. Citibank reluctantly agreed to incorporate its local operations and proceeded to make its first share issue in September 1984. In 1989 however,

this institution was reconverted to full foreign ownership as the country embarked on a process of economic and financial liberalisation. Chase Manhattan, on the other hand, preferred to discontinue operations in Trinidad and Tobago.

In addition to the foreign bank branches incorporating their local operations, there were also three indigenous banks in the country. The Trinidad Co-operative Bank was established as early as 1914 while the National Commercial Bank and Workers Bank came much later in the 1970s. At the end of 1992 there were 8 commercial banks operating in Trinidad and Tobago with a total of 123 branches. The average total assets of these institutions amounted to $12,894 million and average total deposits $8,631 million.

SECTION II
INDUSTRY PERFORMANCE

a) Macro economic and Policy Context

In any modern economy the financial sector is a large and important contributor to output and employment in its own right. However, since it is the real sector of the economy which drives much of financial activity, developments in this sector and policies designed to affect them provide a useful point of departure in seeking to understand and explain financial trends.

In the case of Trinidad and Tobago, an oil economy, an appreciation of certain structural and institutional features of the economy is also important to an understanding of developments in the monetary and financial system. Although the structure of the economy is now slowly being transformed it was certainly the case during the reference period that the level of economic activity was substantially dictated by government expenditure. The government in turn derived much of its revenue - an average of 35.7 per cent over the reference period - from the oil sector in the form of taxes paid in US dollars. Consequently, the viability of both the

government budget and the current balance of payments depended critically on the level of oil production and prices and tended to be simultaneously affected by savings in these variables.

During the decade of the 1970's, Trinidad and Tobago experienced an unprecedented economic and financial boom brought on by the quadrupling of international oil prices in 1973. Inflows of oil revenue transformed fiscal and balance of payments deficits into surpluses and stimulated the growth of GDP which rose from an average of 6.4 per cent in the 1960's to 22.5 per cent. During this period there was also an expansion of government expenditure which fuelled growth in the non-oil economy and expanded monetary resources at an average rate of 26 per cent per year. Growth of the money supply was facilitated by the relatively passive stance of monetary policy in the latter half of the 1970s.

The financial boom engendered by the oil bananza also saw the advent of new financial institutions (finance houses) and a corresponding increase in financial assets. Commercial banks enjoyed a period of unprecedented prosperity with pre-tax profits increasing at an average rate of 59 per cent. The growth of commercial bank assets was similarly dynamic resulting in an overall increase in banks' profit margins. Between 1971 and 1980 the return on commercial banks' assets averaged 2.26 per cent.

The vulnerability of the economic and financial boom to developments in the oil sector was starkly revealed towards the end of the 1970's as oil prices and production levels began to fall. This trend continued into the 1980's, a period which initially saw a fall-off in growth leading to an eventual decline in real GDP and the emergence of fiscal and balance of payments deficits. Government expenditure however continued to increase at an average rate of 9 per cent between 1981 and 1985, financed by the drawdown of fiscal savings from previous years and by external borrowing. The continued large injections of resources into the system effectively cushioned the impact of the downturn on the financial system. During the period 1981-1985, growth of the money supply averaged 13 per cent while the return on commercial bank assets increased to an average of 2.64 percent.

The onset of economic downturn in 1983 prompted the government to initiate a gradual programme of adjustment designed to ease aggregate expenditure down to sustainable levels. The attempt at stabilization was however crushed by a drastic decline in the price of oil in 1986. The price of West Texas Intermediate, a variety of crude oil to which the price of TT export crude is closely related, fell from an average of US$ 27.96 per barrel in 1985 to US$ 14.87 per barrel in 1986. In effect this deepened the recessionary trend in Trinidad and Tobago resulting in an average rate of decline of 1.5 per cent in GDP between 1986 and 1992. During this period the country also underwent two Stand-by adjustment programmes with the International Monetary Fund (IMF) which reduced the rate of decline towards the end of the 1980's and the early 1990's.

TABLE 1

SELECTED ECONOMIC INDICATORS 1986-1992

	1986	1987	1988	1989	1990	1991	1992
Real GDP Growth rate (%)	-3.3	-4.6	-3.9	-0.8	1.5	2.5	-1.6
Fiscal Surplus/Deficit (TT$Mn)	-1,380	-1,248	-1,113	-764	-274	-50	-644
Balance of Payments Surplus/ Deficit (US$Mn)	-671	-250	-172	-136	-190	-312	-125
West Texas Intermediate Spot Price (US$/bbl)	14.87	19.14	15.95	19.58	24.12	21.62	20.57
Crude Oil Production (000 bbls)	61.6	56.6	55.2	54.5	55.2	52.6	49.5
Unemployment Rate (%)	17.2	22.3	22	22	20	18.5	19.6

Source: Central Bank of Trinidad and Tobago.

Activity in the non-oil economy was particularly vulnerable to the effects of the downturn and during the period 1986-1992 non-oil activity fell on average by 1.4 per cent per year. Particularly large rates of decline were recorded in construction, distribution and manufacturing, areas in which commercial banks had large exposures. The fall-off in activity in

these areas therefore had implications for the financial viability of commercial banks over the period.

TABLE 2

DISTRIBUTION OF LOANS

To Average Total Loans	1986	1987	1988	1989	1990	1991	1992
Real Estate Mortgages	7.8	7.9	7.0	7.6	8.2	14.8	15.0
Public Sector	14.9	18.3	20.3	21.2	18.4	15.1	12.5
Agriculture	1.4	1.1	1.3	1.4	1.5	1.5	1.5
Petroleum	2.1	1.7	1.3	1.0	1.3	1.6	1.0
Manufacturing	13.6	15.4	15.9	14.1	13.5	12.3	13.4
Construction	6.5	5.6	4.4	4.1	4.2	3.6	3.5
Distribution	12.0	13.5	12.6	11.7	11.5	10.7	11.0
Transport,Communication & Storage	0	0	1.3	1.2	1.1	1.3	1.8
Finance, Insurance&Real Estate	11.1	10.7	10.5	11.2	12.7	12.6	11.5
Personal Services	1.4	1.7	1.3	1.5	1.5	2.1	3.4
Consumer Loans	25.2	20.6	21.6	23.7	25.2	23.4	24.4
Miscellaneous	4.0	3.5	2.5	1.3	0.9	1.0	1.0

Source: Central Bank of Trinidad and Tobago.

The Central Government experienced persistent fiscal deficits throughout the seven year period, 1986-1992. In the initial period of 1986-1988, these deficits were exceptionally large (in excess of $1 billion), indicating the need for strong adjustment measures on the part of the government. However, the declining level of economic activity and the consequential weakening of the government's revenue base meant that, realistically, the burden of fiscal adjustment would have to be borne more heavily by the expenditure budget. During this period there were large scale retrenchment in the public service, cuts in the wages and salaries of

public servants, reductions in the transfers and subsidies to state enterprises and statutory boards and an overall decline in the level of government spending on development projects

To a limited extent, there were also attempts to increase revenue inflows. The major initiative in this regard was the introduction in 1990 of a 15 per cent Value Added Tax. Many of the fiscal reform measures took place during the period 1989-1990 and occurred within the context of a formal IMF adjustment programme. These adjustment measures sought to reduce the government's net domestic budget deficit by reducing government's expenditure, expanding its revenue intake and restricting its financing options.

Monetary policy over much of the period 1986-1992 was conducted within the context of the IMF stabilization programmes and focussed on the objective of restoring external balance by restricting domestic demand. Under the programme certain monetary targets were established including limits on commercial bank lending to state enterprises and statutory boards and on lending to the Central Government.

In order to meet the objectives of monetary policy, as defined in the framework of the adjustment programme, the Central Bank made active use of the traditional tools of monetary management. During the period 1989 and 1992 the cash reserve requirement was increased on two occasions by an aggregate six percentage points. In addition there was in existence a secondary reserve requirement which banks could satisfy by holding either treasury bills, special deposits or cash. In practice treasury bills were the main instruments held, thereby providing a source of funding to the central government. In 1987 the Minister of Finance in an unusual exercise of his authority under the Central Bank Act, instructed the Central Bank to reduce the cash reserve requirement from 15 to 9 per cent and raise the secondary reserve requirement from 5 to 11 per cent. At the same time the government increased the size of the treasury bill issue by $662 million. This manipulation of a monetary policy instrument for purposes of financing the fiscal deficit subsequently ended when the secondary reserve

requirement was dismantled on a phased basis between 1989 and 1991, in response to IMF conditionality.

In addition to its use of the reserve requirement, the Central Bank also reactivated the rediscount rate as an instrument of monetary policy as tightening financial conditions led to shortages of reserves which commercial banks sought to satisfy via the Central Bank's rediscount window. In an attempt to discourage this emerging pattern of behavior the Central Bank increased the rediscount rate on five occasions by a cumulative 5.5 percentage points between 1988 and 1992.

The combined effect of these monetary policy measures was a generalized increase in interest rates and a consequential rise in the cost of funds for commercial banks. In addition the rising cost of funds also had an impact on the activities of the real sectors of the economy. Many businesses were already finding it difficult to cope with the effects of the recession and the rising cost of finance acted as a catalyst for many business failures, including that of one of the country's largest production and distribution conglomerates.

TABLE 3

SELECTED INTEREST RATES
/Per Cent/

	1986	1987	1988	1989	1990	1991	1992
Rediscount Rate	7.50	7.50	9.50	9.50	9.50	11.50	13.00
Basic Prime Loan Rate	11.50	11.50	13.00	12.75	12.88	13.50	15.50
Time Deposit Rate							
3-month	6.75	5.79	7.32	6.19	6.25	7.63	7.79
6-month	7.25	7.00	7.82	6.76	6.70	7.79	8.16
1-year	7.63	7.00	8.01	6.88	7.02	8.38	8.44

Source: Central Bank of Trinidad and Tobago.

The financial system was not immune to the problem of failures and during the period 1986-1992 several finance houses collapsed in the face of a continuation of problems which had affected this sector since the beginning of the 1980's with the onset of the recession. Two commercial banks also had to be restructured during the period, highlighting the fact that commercial banks were required to deal with the problem of adjustment both internally and externally. The business sector formed a large part of their client base and the performance of business firms naturally affected their performance.

b) The Performance of Commercial Banks

With the economy continuing to deteriorate in the face of a reduced fiscal stimulus and monetary growth falling to an annual average rate of 1.7 per cent over the period 1986 to 1992 the total assets of commercial banks recorded an annual average growth rate of 3.8 per cent, representing a sharp deceleration from 27.4 per cent in 1976-1980 and 14.9 per cent in 1981-1985. The weak growth of bank assets was closely related to conditions in the credit market where low demand and tighter credit risk evaluation resulted in the rate of credit expansion slowing to 3.6 per cent in the seven years to 1992.

The severe adjustments taking place in the economy as well as the drastic policy shifts which accompanied them inevitably impacted on the composition of commercial bank assets, with some implications for financial performance of these institutions. Government securities rose from 3.8 per cent to 8.1 per cent of total assets between 1986 and 1988, largely in consequence of the change in the structure of bank reserves mandated by the Minister of Finance in 1987. It may also have been the case that banks had independently developed a preference for relatively safe government debt instruments in the context of a riskier lending environment, but this would clearly imply some trade-off with respect to yield. However, the consequent progressive removal of the secondary reserve requirement within the framework of

the IMF stabilization programme led to a steady fall in the share of government securities in total assets in the later period 1989-1992. By 1992 this share had fallen to 2.6 per cent.

As with banks' investments in securities, the distribution of bank loans underwent a shift towards public sector loans, the share of which in total loans increased from 14.9 per cent in 1986 to 21.2 per cent in 1989. Despite rising interest rates public sector entities were forced to increase their levels of bank borrowing in the face of cutbacks in government transfers and subsidies to these institutions. In 1989 the change in monetary policy limited the amount of loans commercial banks could extend to these institutions and the share of public sector loans subsequently receded to 12.5 per cent by 1992.

As the business environment deteriorated and economic activity fell commercial banks began to experience severe problems of asset quality which, however, were not confined to their business loan portfolios. Banks found that lending to consumers had also assumed a higher degree of riskiness as retrenchment became widespread throughout the economy and declining real incomes impaired the capacity to repay loans.

The problems of asset quality were reflected in rising ratios of non-performing loans to total loans and the associated need for commercial banks to make provisions for potential losses. Over the period 1986 to 1989 the ratios of non-performing loans to total loans and accumulated loan loss provisions to total loans rose from 11.7 per cent and 5.3 per cent respectively, to 24.6 per cent and 8.5 per cent. During this period two banking institutions also had to be restructured by the Central Bank and a substantial portion of their non-performing loans was transferred to collection companies. The cleaning of the balance sheets of these institutions was largely responsible for an improvement in the asset quality of banks in 1990-1992 but by then banks had also implemented tighter credit screening practices. During this period the share of non-performing loans in total loans averaged 14.5 per cent, while the ratio of loan loss provisions to total loans fell to an average of 6.9 per cent.

Consistent with the growth of total assets, liabilities in the banking industry increased on average by 3.8 per cent between 1986 and 1992. As in the case of assets, this represented a marked deceleration relative to growth rates that prevailed in the previous decade. Deposits, which account for close to 80 per cent of total liabilities grew by an average 1.9 per cent in 1986-1992 compared to an average rate of 16.9 per cent in 1980-1986. Growth of deposits was affected by the reduction in the government's net domestic budget deficit over the period.

During the initial period of 1986-1989 there was a definite shift in the composition of deposits in favor of time deposits. The share of time deposits in total deposits increased from 49.7 per cent in 1986 to 56.1 per cent in 1989, while the share of demand and savings deposits fell from 13.5 per cent and 34.6 per cent, respectively, to 12.7 per cent and 31.2 per cent. Since demand deposits were held mainly by corporate customers essentially for transactions purposes the decline of their share in total deposits was not surprising in light of prevailing business conditions. Faced with growing liquidity problems banks apparently targeted the savings of individuals, normally their largest source of funds. However, the emphasis on the marketing of time deposits had obvious implications for banks' cost structures.

In the later period of 1990-1992 however, the general improvement in economic activity as well as heightened competition for resources by non-bank financial institutions, led commercial banks to introduce more attractive savings instruments which combined the features of high liquidity and high yields. This had the effect of reducing the share of time deposits in total deposits, while at the same time increasing the proportion of savings and demand deposits and reducing the interest expense of banks.

Over the period 1986-1992 there was broadly an upward trend in profits in the commercial banking industry. On average commercial bank profits grew by 12.1 per cent during this period. However, in the years 1986-1988 as the economy continued to weaken and the asset quality of banks deteriorated, the pre-tax profits of banks actually declined by an average 29.6 per cent. Growth in 1989-1992, which averaged 43.3 per cent, therefore led the

overall increase in profits for the period as a whole. It was during this period that economic activity picked up and the cleaning of the balance sheet of some commercial banks took place. This effectively reduced the need for additional loan loss provisions.

While the trend in absolute profits gives some insight into the profit performance of banks, profits in relation to total assets is a better measure of financial performance. Viewed in this way, banks' profitability generally increased over the period 1986-1992. In the initial period of 1986-1988 the return on assets (ROA) averaged 0.6 per cent while in 1989-1992 this ratio increased to 1.1 per cent.

The analysis of the evolution of bank profitability over the period could best be approached by reference to comparative trends in operating income and expenditure. Since interest income accounted for approximately 85 per cent of total operating income, the revenue performance of banks was sensitive to the factors that affected interest income. These factors included the composition and growth of bank credit, the level of interest rates and the asset quality of commercial banks, variables which were themselves affected by the underlying growth in the economy and actions taken in the spheres of monetary and fiscal policy. Over the period 1986-1989 there was a definite shift in the composition of bank credit in favor of the public sector while the asset quality of banks deteriorated noticeably and interest rates increased only marginally. It is not surprising therefore that during this period interest income recorded relatively sluggish growth, increasing on average by just 1 per cent. In the later period of 1990-1992 however, as economic activity picked up and business failures abated the level of private sector credit outstanding at commercial banks increased and the asset quality of banks improved significantly. The tightening of monetary policy measures on the part of the Central Bank also led to a general increase in interest rates and a consequential rise in interest income at commercial banks. During this period interest income increased at an annual average rate of 9.5 per cent, leading an overall increase of 4.7 per cent for the period as a whole.

Interest expense which accounted for close to one half of total operating expenses increased almost steadily over the period 1986-1992. The factors which affected this component of expenditure were the composition and growth of bank deposits and the level of interest rates in the domestic economy. Over the period 1986-1992 bank deposits grew at an average rate of 1.5 per cent while interest expenses increased on average by 6.5 per cent. In the initial period of 1986-1989, the growth in interest expense (3.4 per cent) was fuelled by the changing composition of deposits in favour of time deposits as interest rates on deposits generally trended downwards. In the years 1990-1992, there was a redistribution of deposits in favour of shorter term demand and savings deposits but the substantial rise in interest rates effectively nullified the effect on interest expenses. Between 1990 and 1992 the median rates on 3-month, 6-month and 1-year deposits increased within a range of 142 and 154 basis points, while the rate of increase of interest expenses rose to an average of 10.8 per cent.

Although interest represents a cost to commercial banks, it was also the major source of their income. The difference between interest income and interest expenses is the net interest margin and this measure gives some indication of the interest profitability of commercial banks. This margin declined on average by 1.5 per cent between 1986-1990 before increasing sharply in 1991 and 1992 to average 14.2 per cent. The ratio of interest expense to income however remained fairly stable over the period averaging close to 50 per cent.

There are arguably several concepts of efficiency which can be employed in evaluating the performance of commercial banks. However, the concept of cost efficiency is probably most relevant in the context of an assessment of financial performance. Thus the indicators used basically seek to establish and compare the extent to which banks' operating income were consumed by interest and other operating and administrative costs.

TABLE 4

EFFICIENCY RATIOS

	1986	1987	1988	1989	1990	1991	1992
Per cent of Total Operating Income							
Total Operating Expenses of which:	81.0	84.8	81.9	82.1	86.7	85.0	90.1
Interest Expenses	38.8	41.6	44.3	43.6	42.7	40.9	44.2
Loans Written-Off	12.3	9.5	13.4	10.6	5.8	4.6	4.3
Salaries & Employee Benefits	26.6	26.1	22.5	22.1	24.7	24.8	23.5

Over the period 1986-1992 their was a remarkable deterioration in the efficiency performance of commercial banks. The share of operating expenses to operating income increased by 9 percentage points from 81 per cent in 1986 to 90 per cent in 1992. However, interest expenses, which are largely determined by market forces and outside the direct control of commercial banks, accounted for more than one half of the total operating costs. As a proportion of income, this item of expenditure increased from 38.8 per cent in 1986 to 44.2 per cent in 1992. Loan write-off, which to a large extent was also determined by economic factors, accounted for an average of 11.45 per cent of income in 1986-1989. This ratio subsequently fell to an average of 5.9 per cent in 1990-1992 as economic activity picked up and commercial banks instituted better screening procedures prior to the approval of loan applications.

In wake of declining and slow rates of growth of operating income and with exogenously determined interest expenses, commercial banks tried to cushion the impact on profit margins by tightly managing other controllable administrative expenses, while at the same time expending on projects that would increase future streams of income. Salaries and employee benefits, which for banks is the second largest expenditure item, fell steadily from 1986 to 1989. There was a reduction in both the employment level and the nominal income of

banks' employees. Over the next three years however, salaries and employee benefits increased as commercial banks increased their employment levels and the remuneration packages of their employees. However, as a share of total operating income these ratios were lower than in 1986-1989, implying that banks were successful in managing this area of cost as the proportionate increase in income was higher than the increase in salaries and employee benefits. Other operating expenses to income increased steadily over the period from 8.6 per cent in 1986 to 11.3 per cent in 1992 as commercial banks incurred expenses in developing and marketing new products.

SECTION III

a) Theoretical Framework

The period 1986-1992, a span of just seven years, is a relatively short period of time for purposes of statistical analysis. Accordingly, no attempt was made to carry out statistical tests on the data available to draw conclusions about the performance of commercial banks in Trinidad and Tobago. The conclusions arrived at are based on *prima facie* evidence. Consideration was given to two alternative approaches to explaining business performance, the structure conduct performance (SCP) paradigm and the efficiency hypothesis. However given the intra-industry focus of this analysis, it was felt that the efficiency hypothesis was more applicable to this study. The efficiency hypothesis emerged as a direct challenge to the traditional interpretation of the SCP paradigm and as a result the basic tenets of the SCP model are also given.

The SCP model assumes that structural market characteristics determine market behavior. However the ability to produce evidence in support of this model is contingent upon the existence of a reasonable degree of stability in the basic features of the market structure. These features, according to J.S. Bain, one of the foremost contemporary exponents of the SCP model, are the degree of concentration, the degree of product differentiation and the

conditions of entry. If these features are constantly changing then it may be difficult to trace any causal relationship between structure, conduct and performance.

As a result of the possible variability of market structure many researchers have opted for cross sectional and univariate studies. Cross sectional studies are potentially deficient in that they may measure the performance of firms at a time when firms may be in a disequilibrium position in response to recent changes in their environment. In this regard, time series studies are superior since they describe the behavior of firms and the market over time as they move towards equilibrium. Univariate studies are also deficient in that they ignore the obvious fact that performance is usually a function of many factors and not just one. Many studies that use this approach tend to emphasize the concentration aspect of market structure.

The traditional interpretation of the SCP paradigm is based on the proposition that market concentration fosters collusion among firms in the industry. The degree of concentration of a market exerts a direct influence on the degree of competition. According to the paradigm, the more concentrated the market, the less the degree of competition. Thus, firms in a more concentrated market will earn higher profits (for collusive and monopolistic reasons) than firms in a less concentrated market. This is irrespective of the efficiency of the firms in the market.

There has been a number of empirical studies in support of SCP relationships in the banking industry and many of the early studies have been criticized for their inconsistencies and contradictions. As a result of the dissatisfaction with the SCP paradigm, alternative approaches to explaining the performance of firms have emerged. One such approach is the efficiency hypothesis.

According to the efficiency hypothesis, the relation between an individual firm's performance and its market structure is dependent on the efficiency of the firm. If a firm has a high degree of efficiency, compared to its competitors (that is, if it has a relatively low cost

structure) it can maximize profits either by maintaining its present level of prices and firm size or it can reduce prices and expand its firm size. If the latter strategy is adopted, then the most efficient firm will ultimately gain market share and the driving force behind the process of concentration would be firm efficiency. In studies undertaken in the United States it was found that firm-specific efficiency was the dominant variable in explaining banks' profitability.

b) The Micro Performance of Commercial Banks

In this section the firms in the industry are stratified by size and by origin. The performance of indigenous banks is viewed in relation to that of other retail banks of expatriate origin, while the small institutions are compared with the medium and large banks in the industry. The small banks are also coincidentally the indigenous banks in the industry and have assets of less than one billion dollars. Medium and large banks have assets of one to two billion dollars and above two billion dollars, respectively.

The classification of banks according to origin for purposes of comparing their performance is not arbitrary. There is a view that the historical links which the former foreign branch banks have with their former parent institutions and the technology transfers which they undoubtly benefited have given them some advantage over the indigenous banking institutions. In addition, the indigenous banks were born out of a particular set of cirsumstances which many have been led to believe impacted on the way they do business. Two of the three indigenous banks were established in the wake of the social unrest of the early 1970s in which one of the more popularly expressed greviences was the alleged insensitivity of the foreign derived banking sector to the needs and aspirations of the ordinary people. It has often been suggested that the behaviour and practices adopted by the indigenous banks would inevitably be influenced by their perceived mission to redress the inequitable practices of their counterparts of external origin. The purpose for classifying by origin is to ascertain whether there were any significant differences in performance which correlated with origin. Similarly,

classification by size is intended to show whether there were any performance characterisitcs that could be associated with the size of the institutions.

When grouped by origin, commercial banks show wide variations in performance with respect to profitability. The profitability of banks is measured in terms of their return on assets (ROA). Between 1986 and 1988, the industry's ROA averaged 0.6 per cent with the average for indigenous banks being negative 0.3 per cent while the average for the other institutions was 0.9 per cent. Over the next four years however, indigenous banks generally had positive returns (0.2 per cent on average) but these were much lower than the returns for the other institutions (1.4 per cent). The end result was an overall increase in the industry's average to 1.1 per cent.

TABLE 5

PROFITABILITY RATIOS
/Per Cent/

	1986	1987	1988	1989	1990	1991	1992
Return On Assets							
Indigenous (small)	-0.48	-0.08	-0.30	0.43	-0.57	0.40	0.73
Other	1.24	0.85	0.80	0.83	1.40	1.55	1.73
of which: medium	1.93	1.45	1.35	1.20	1.90	1.70	1.85
large	0.55	0.25	0.25	0.45	0.90	1.40	1.60
Industry	0.66	0.49	0.47	0.76	0.73	1.16	1.50

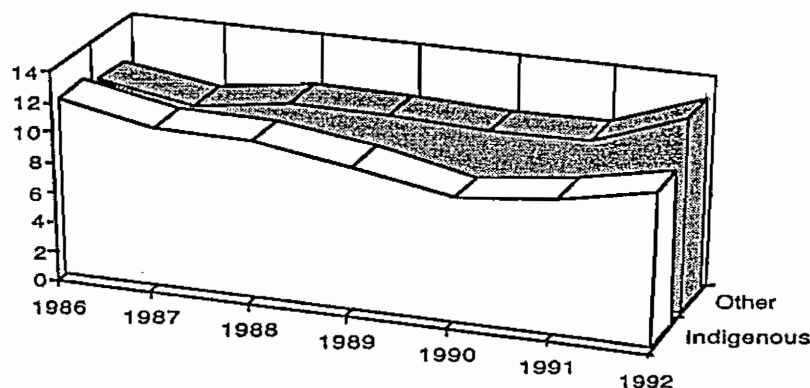
Source: Central Bank of Trinidad and Tobago

The explanation for the relatively weak performance of the indigenous banks rests with their cost management or the efficiency of the institutions since their income generation capability compared favourably with the other institutions. This was especially the case for the

period 1986-1988. Thereafter, a combination of declining income and deteriorating cost efficiency explained their performance.

CHART 1

OPERATING INCOME/TOTAL ASSETS



Source: Central Bank of Trinidad and Tobago

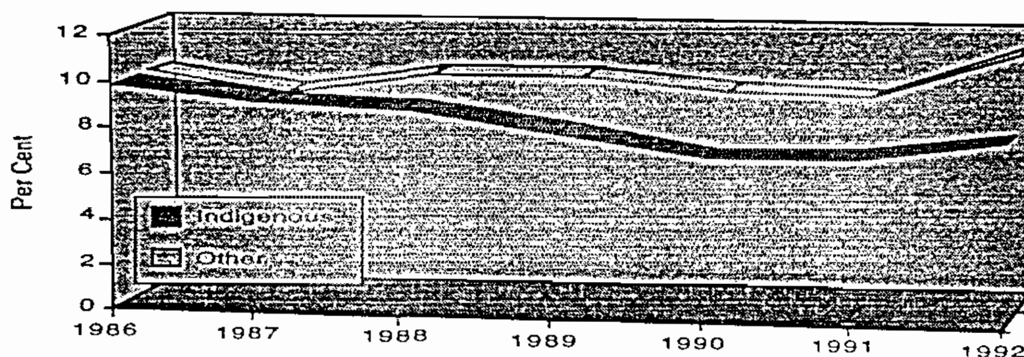
Indigenous banks generally had lower ratios of interest income to total assets. These ratios for the indigenous banks averaged 8.29 per cent between 1986 and 1992 compared with an average of 9.74 per cent for the other institutions. A number of factors were responsible for the lower interest income to total asset ratios of the indigenous bank group. Firstly, these institutions held a smaller proportion of their total assets in interest earning instruments while at the same time their other assets, including fixed assets, to total assets averaged 22.5 per cent compared with an average of 16.7 per cent for the other institutions. By comparison, the ratios of interest earning assets to total assets of the indigenous banks averaged 77.5 per cent while the average for the other institutions was 83.3 per cent. The differences in the asset holdings of the two groups of institutions arose during the 1970s when the government in pursuant of its objective to localise the operations of banks, temporarily ceased to grant licences to expatriate banks to increase their branch operations. By contrast, indigenous banks were allowed to expand their branch network and one institution in particular probably overextended itself in the holding of fixed assets.

In addition, indigenous banks charged marginally lower rates of interest on some categories of loans as they sought to compete with other institutions and at the same time meet their objective of catering to the needs of the low and middle income earners. Data available from 1988 showed that the interest rates charged on instalment loans were on average 26 basis points lower than the rates charged by the institutions with expatriate origin.

Another factor which helped explain the lower interest income to total asset ratios of the indigenous bank group was the asset quality of these institutions. Over the period 1986-1992 there was a substantial deterioration in the asset quality of indigenous banks. Their share of non-performing loans in total loans rose from 9.67 per cent in 1986 to 25.50 per cent in 1992 with a peak of 48.93 per cent, almost half of their total loan portfolio, in 1989. By contrast, this ratio for the other institutions fell from 14.58 per cent in 1986 to 10.08 per cent in 1992, with a ratio of 20.8 per cent in 1989. Indigenous banks had more bad loans in their books, indicating either weak credit controls or the extension of credit to areas (example the individual sub-sector) that were most vulnerable to the recession.

CHART 2

INTEREST INCOME/TOTAL ASSETS



Source: Central Bank of Trinidad and Tobago

With respect to the efficiency or the cost management of the institutions, while in both categories of institutions, interest expense was the single largest component of total expenses, for indigenous banks the ratios of interest expense to income were much higher, averaging 58.5 per cent compared to an average of 39.1 per cent for the other institutions. As in the case of interest income a number of factors were responsible for the high interest expense of the indigenous bank group. While indigenous banks charged lower rates of interest on loans, they offered slightly higher rates on deposits. The average rates on 3-month and 6-month deposits were on average 55 and 15 basis points, respectively, higher than the rates of the other institutions, while the rates on 1-year time deposits were on average lower by 2 basis points. In addition the deposit base of indigenous banks was skewed towards longer-term savings and time deposits because of a predominance of individual as distinct from corporate clients on their books. Their cost of funds was consequently higher and as a result of the emphasis on retail banking they had a larger cost structure associated with the management of a large number of small accounts. Consequent on the deterioration of the quality of their loan portfolios, indigenous banks also had higher provision for losses and loan write-off. The ratios of salaries and employee benefits to total operating income however, closely approximated the average for the other institutions between 1986 and 1988. Thereafter there was actually a fall-off in this item of expenditure resulting in a ratio which averaged 18.36 per cent between 1989 and 1992 compared with an average of 24.70 per cent for the other institutions.

The indigenous bank group also contained the smaller banks in the industry and their performance could have been partly influenced by their size. As a result they were not receiving the benefits of economies of scale. In addition, these banks were relatively new in the system and their lack of experience in the field of banking could also have contributed to their performance. The other institutions, although incorporated locally around the same time as the birth of the indigenous banks, had been born out of large international banking institutions. They all maintained their links with their former parent companies and had well established correspondent banking relationships with them. By contrast, the indigenous banks had to establish banking relationships abroad and also had to incur costs for consultancy

TABLE 6

EFFICIENCY RATIOS
/Per Cent/

	1986	1987	1988	1989	1990	1991	1992
Total Operating Expenses/ Total Operating Income							
Indigenous (small)	87.70	89.47	92.50	80.67	120.1	96.00	96.93
Other	77.70	82.30	81.35	83.48	81.68	81.85	87.78
of which: medium	75.50	80.40	79.85	81.60	80.65	82.35	87.15
large	79.90	84.20	82.85	85.35	82.70	81.35	88.40
Interest Expense/Total Operating Income							
Indigenous (small)	44.03	55.90	58.87	50.27	82.63	58.93	61.03
Other	37.18	39.43	41.48	40.58	37.03	36.88	40.88
of which: medium	38.45	43.00	43.55	41.30	36.60	37.20	42.65
large	35.90	35.85	39.40	39.85	37.45	36.55	39.10
Salaries & EmployeeBenefits/ Operating Income							
Indigenous (small)	26.60	20.10	19.07	16.77	20.60	19.10	16.97
Other	25.83	26.28	23.05	23.63	25.25	25.60	24.33
of which: medium	22.65	22.55	21.15	22.60	24.45	25.05	23.45
large	29.00	30.00	24.95	24.65	26.05	26.15	25.20

Source: Central Bank of Trinidad and Tobago

services. Indigenous banks tried to establish themselves in this highly competitive environment by offering higher rates on deposits and charging lower rates on loans. Most of their deposits were concentrated in savings and time deposits hence the reason for their high interest expense. The quality of their loan portfolio also deteriorated noticeably over the period and two of the three institutions had to be restructured by the Central Bank. To a limited extent this eroded public confidence in these institutions.

TABLE 7

ASSET QUALITY
/Per Cent/

	1986	1987	1988	1989	1990	1991	1992
Total Non Performing loans/Average Total Loans							
Indigenous (small)	9.67	16.53	28.67	48.93	20.47	26.93	25.50
Other	14.58	20.30	22.75	20.80	15.30	9.00	10.08
of which: medium	9.60	15.50	15.60	12.10	7.05	3.90	5.55
large	19.55	25.10	29.90	29.50	23.55	14.10	14.60

Source: Central Bank of Trinidad and Tobago

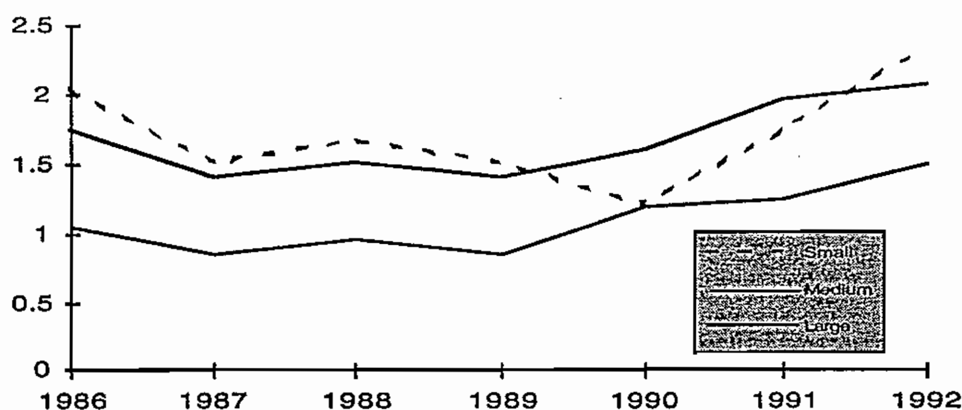
Although the other retail banking institutions performed better than the indigenous banks, within this group there were wide variations in performance. The smaller banks in this group or the medium sized firms in the industry generally performed better than their larger counterparts. Over time however there was a narrowing in the gap between the two classes of institutions.

Between 1986 and 1992 medium sized firms had profitability ratios higher than those of their larger counterparts. The exception to this was the ratio of non-interest income to total assets. In this area of profitability, the small banks ranked the highest, followed by the larger banks in the system. Medium sized banks had the lowest of such ratios. This occurred because medium sized firms concentrated their efforts on traditional banking instruments and hence placed their emphasis on the generation of interest income. These institutions had a higher proportion of their assets in loans, had very good asset quality and hence lower ratios of additional provision for losses (including loan write off) to total assets. Between 1989 and 1991 medium sized banks actually had releases from provisions thus lending impetus to their overall profitability position. The larger institutions on the other hand also held a substantial portion of their assets in loans but these ratios were lower than those of the medium sized

banks. In addition, large institutions had higher ratios of Trinidad and Tobago securities and external assets to average total assets. The quality of their loan portfolio was quite bad when compared to that of their medium sized counterparts.

CHART 3

NON INTEREST INCOME/TOTAL ASSETS



Source: Central Bank of Trinidad and Tobago

In terms of efficiency, medium sized banks had higher interest expenses to total operating income and lower salaries and employee benefits to total operating income ratios. Between 1986 and 1988 there were wide variations in the proportion of salaries and employee benefits to income between the medium sized banks and the large institutions. In the remainder of the period however, this gap had been significantly narrowed as the medium sized banks increased their ratios and larger institutions reduced theirs. The larger institutions generally had a higher ratio of other operating expenses to total operating income. This is consistent with the fact that these institutions incurred expenses to develop and market new products such as credit card services.

CONCLUSION

Although profitability in the commercial banking industry weakened in the earlier period of 1986-1988, the general trend was towards an increase in profits between 1986 and 1992. Commercial banks strengthened their financial position over the period by improving their administrative efficiency, cutting wage related expenses and introducing a range of new products such as credit cards and personal chequing facilities. They also restructured and in some cases strengthened their lending policies in order to reduce the share of non-performing loans to gross loans. As economic activity picked up and business failures abated commercial banks also reduced their provisioning against loan losses.

The general trend in economic activity, as well as changes in monetary and fiscal policies over the period, affected the distribution of assets at commercial banks and ultimately the earning potential of these institutions. In the earlier period of 1986-1988 the total nominal value of T&T government securities rose substantially due to ostensibly large budget deficits and an increase in the secondary reserve requirement for commercial banks. Similarly, lending to the public sector rose to phenomenal levels over the same period, reflecting an increased demand for such loans arising from cutbacks in government's transfers and subsidies to these institutions. However, in the rest of the period, the fiscal deficits of the government were greatly reduced, the secondary reserve requirement was lowered and eventually removed and restrictions placed on commercial banks' lending to public sector institutions. Consequently bank holdings of government securities contracted in the 1989-1992 period while the growth in lending to public sector institutions decelerated in 1989 and fell over the next three years.

The intra-industry analysis was superficial in nature and although much work needs to be done in this area, the preliminary findings reveal that there were significant differences in the performance of banks according to origin classification and the size structure of the institutions. Banks with expatriate origins generally performed better than indigenous banking institutions. Ranking the performance of institutions according to the size of their asset bases, the

performance of medium sized banks was superior to that of the small and large banks. Cost management and the asset quality of the institutions were mainly responsible for differences in earnings.

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