Financial Development and Economic Growth in Guyana
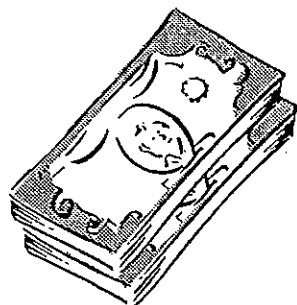
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FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH IN GUYANA

1.0   Introduction

There is a large body of literature which demonstrates that the financial system is a critical and inextricable part of the growth process. The literature suggest that financial instruments, markets and institutions mitigate market frictions associated with information and transaction costs and thereby facilitate the allocation of resources across space and time. Specifically, they: facilitate the trading, hedging, diversifying, and pooling of risk; allocate resources; monitor managers and exert corporate control; mobilise savings; and facilitate the exchange of goods and services. These functions in turn influence economic growth through capital accumulation and/or alter the rate of technological innovation.

The relationship between financial structure and economic growth has long been studied empirically and theoretically. Early seminal contributions by Goldsmith (1969), Gurley and Shaw (1967), McKinnon (1973) and Shaw (1973) analysed the underlying mechanism of financial structure on growth. Specifically, McKinnon (1973) and Shaw (1973) argued that financial repression (such as interest rate ceilings, high reserve requirements and directed credit programs) impedes financial deepening, capital formation and growth. Most recent empirical treatment by King and Levine (1993); Levine (1997); and Levine (1999) of financial deepening onto growth[1] observed a positive relationship. Their findings show that the main channel of transmission from financial development to growth is as a result of increased allocative efficiency rather than the volume of financial resources. In contrast, Joan Robinson (1952) argued that economic development creates demands for financial services which are automatically provided by the system. Other researchers such as Dornbush and Reynoso (1989) and Chandavarkar (1992) are skeptical of the hypothesis that financial development is a prerequisite for growth.

In light of the seemingly conflicting role of financial systems in the growth process, this paper seeks to assess the finance growth nexus and the importance of the financial system in

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[1] The services provided by financial intermediaries, such as risk management, researching firms, exerting corporate control and providing liquidity were used.

Guyana. The paper is organised as follows: Section II provides an overview of the financial system in Guyana during the pre-reform and reform periods. Section III provides an analysis of the effects of financial reforms. Section IV provides a quantitative assessment of the importance of the financial system in Guyana's economic performance. Section V discusses the policy implications of the empirical results. Lastly, section VI provides some conclusions.

2.0   Overview of the Financial System

The financial system in Guyana has changed significantly over the last decade. Prior to October 1965 two foreign-owned banks conducted commercial banking in Guyana, namely the Royal Bank of Canada and the Barclays Bank, D.C.O. The Royal Bank of Canada started operations in Guyana in 1914 when it took over the activities of the British Guiana Bank. The latter had been incorporated on November 11, 1836, and began operations on February 16, 1837. Barclays Bank commenced business in 1925, following the merger of three banks - the Anglo Egyptian Bank Ltd., the National Bank of South Africa, and the Colonial Bank which operated in the colony of British Guiana since 1837. In October 1965, Chase Manhattan Bank of the United States established a branch in Guyana. This was followed shortly by the opening of the Bank of Baroda with head offices in India in March 1966.

By the end of 1966 the two dominant banks, the Royal Bank of Canada and Barclays, operated more than twenty-five branches, sub-branches, and agencies, a third of which were located in Georgetown. In the following years many rural branches and agencies were closed. These institutions essentially provided short-term trade and working capital finance. At that time, it was felt that the commercial banking sector did not adequately provide the type of financing required to develop the Guyanese economy. As a result, the authorities embarked on a strategy aimed at shaping a financial system that would mobilise deposits and provide loans to rural areas, provide long-term finance for investment, and supply resources in support of local firms.

In response to the need to improve the role of the financial sector, the Government established the Guyana National Co-operative Bank (GNCB) in February 1970. The bank was given the task to provide for commercial financing requirements of Guyanese businesses; to

support investments in new business areas, and to extend financial services to rural communities where such services were nonexistent.

As part of the financial sector restructuring programme, the Government in 1984 started a process of nationalising foreign-owned commercial banks beginning with the Royal Bank of Canada, which name was changed to National Bank of Industry and Commerce (NBIC). The next bank to experience a change in ownership was Chase Manhattan in 1985 (renamed Republic Bank), followed by Barclays in 1987, and renamed the Guyana Bank for Trade and Industry (GBTI). The Government took control of GBTI in 1988[2] and it was merged with the Republic Bank in 1990. Thus, the Government assumed ownership of a substantial portion of the commercial banking sector and by 1990 owned 95.3 percent of GNCB, 51.02 percent of NBIC and 30.0 percent of GBTI. In 1994, the Government sold most of its shares in GBTI, retaining only 1.3 percent. The ownership of the Bank of Baroda and the Bank of Nova Scotia remained under the ownership of the Government of India and a private Canadian bank, respectively.

In 2000, the financial system in Guyana consisted of a small but wide range of banks and non-bank financial institutions. The Bank of Guyana is the apex of the financial system. Seven commercial banks (four domestic and three foreign owned banks) with a network of thirty-six (36) branches dominated the financial system, holding 71 per cent of the total financial assets at end 2000 (see Table I). The non-bank financial sector, comprising insurance companies, credit unions, the new building society, trust companies and a mortgage bank, accounts for the remaining 29 per cent of financial assets in the financial system.

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[2] In technical terms, the Barclays Bank and the Royal Bank of Canada were not nationalised. They were sold to the Government of Guyana for G$1.00 each.

Table I
Percentage Distribution of Assets of Financial Institutions in Guyana

	1980	1985	1990	1995	1997	1998	1999	2000
Commercial Banks	63.9	73.9	64.2	71.6	73.3	74.7	70.8	70.8
Non-Bank Financial Institution	36.0	26.1	35.8	28.4	26.7	25.3	29.2	29.2
Building Society	5.3	5.8	4.7	7.3	7.7	8.1	8.2	8.8
Trust Companies 1/	1.6	2.0	2.2	5.5	5.6	3.3	6.7	6.5
Insurance Companies	14.6	9.6	15.4	9.5	7.9	8.1	8.1	7.7
Life	9.0	7.1	13.1	6.8	5.5	5.9	6.1	5.8
Non-Life	5.6	2.4	2.3	2.8	2.4	2.2	2.0	1.9
Pension Schemes	8.8	3.5	4.1	6.0	5.5	5.8	6.2	6.2
Mortgage Bank	1.9	1.0	0.3	0.1	0.0	-	-	-
Development Bank[3]	3.8	4.2	9.1	0.0	0.0	-	-	-
Total Assets	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Bank of Guyana
1/ Includes Finance Companies

Guyana's banking system is highly concentrated, with the two largest banks accounting for 65 per cent of the total bank assets. The main sources of commercial bank funding are deposits held by the public, which represent 75 per cent of total liabilities at end 2000. Credit facilities to residents (both the private and public sector) represent the largest share of assets (see Table II). Investment in Treasury bills accounts for approximately 17 per cent of the share of commercial banks assets.

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[3] In 1995 the Development Bank was merged with the state owned Guyana National Cooperative Bank.

Table II
Composition of Commercial Banks Assets and Liabilities

	1980	1985	1990	1995	2000
Assets					
Foreign Sector	58,989	34,665	2,408,519	3,798,211	7,849,767
of which balance due from banks abroad	45,616	28,384	2,318,333	2,559,528	4,553,178
Public Sector	450,938	1,665,196	4,878,244	15,540,327	23,193,719
of which securities	216,432	816,471	4,075,721	14,814,142	20,264,138
Private Sector Loans and Advances	195,800	520,075	4,108,696	20,656,770	53,152,297
Bank of Guyana	125,861	627,948	1,802,424	10,326,443	15,509,505
of which deposits	43,760	99,191	691,206	9,355,904	13,713,790
Other including non-banks	92,726	228,290	1,104,867	7,256,504	17,910,629
Total Assets	**924,314**	**3,076,174**	**14,302,750**	**57,578,255**	**117,615,917**
Liabilities, Capital and Reserves					
Foreign Sector	55,599	62,737	862,399	2,883,269	4,875,522
of which balance due to banks abroad	23,043	1,192	545,294	278,596	1,435,647
Public Sector Deposits	51,249	152,694	1,971,186	4,695,213	9,147,959
Private Sector Deposits	562,766	1,410,607	7,042,765	39,634,076	69,923,346
Non-Banks Fin. Insti. Deposits	59,151	155,409	1,436,619	1,827,478	8,454,689
Other Liabilities	195,549	1,201,759	2,192,970	31,463,542	2,937,586
Capital and Reserve		92,968	796,811	5,391,865	22,276,815
Total Liabilities	**924,314**	**3,076,174**	**14,302,750**	**57,578,255**	**117,615,917**

Source: Bank of Guyana

2.1   Pre-reform Financial Sector

Until the end of the 1980's, Guyana's financial system was characterised by selective credit allocation and interest rate controls. Credit was increasingly directed to specific industries, sectors and public sector corporations while interest rate restrictions were in the form of interest rate ceilings. These policies were motivated by the social aspect of banking i.e. to guard against increases in interest rates and to provide low-cost funding to priority sectors. These policies achieved their objectives. However, monetary policy was restricted to direct controls and changes in the minimum liquid assets and reserve requirements. In addition, financial institutions and markets had either deteriorated or failed to develop. Accounting systems were lax, disclosures were poor and surveillance weak. What resulted was an unstable financial system with a defective regulatory framework making commercial lending very risky as banks were burdened with portfolios dominated by unproductive and nonperforming assets. The operational efficiency of the banks was highly unsatisfactory.

2.2 Financial Sector Reforms: 1988-2000

Guyana has undertaken reforms of its financial sector as part of a broader macroeconomic adjustment program and structural reforms since 1988. Key elements of the reform aimed at improving the efficiency of the financial system and enhancing competition among institutions; strengthening the prudential framework; and developing and deepening financial markets.

2.2.1 Policies to improve efficiency and competition in the financial sector

The central features of these reform measures were the removal of restrictions on interest rates, credit and foreign exchange transactions as well as and the use of indirect instruments of monetary policy. In mid-1991, the Central Bank introduced a competitive bidding process for Treasury bill auctions. The bank rate and the rediscount rate were determined by the market determined Treasury bill rate for 91-day bills. The frequency of Treasury bill auctions increased to bi-weekly auctions in 1995 and then to weekly auctions in February 1996.

While the measures above helped to strengthen monetary control and increase the role of market forces in the financial system, monetary policy continued to rely on direct instruments of monetary control in the form of reserve requirements for commercial banks because of excess liquidity in the financial system. In mid-1991, reserve requirements on demand deposits were increased from 6.0 to 11.0 per cent and on savings and time deposits from 4.0 to 9.0 per cent. In April 1994, the reserve requirements went up further from 11.0 per cent of demand deposits and 9.0 per cent of savings and time deposits to 16.0 and 14.0 per cent respectively. In February, 1999, the requirement has been reduced to 12 percent on both demand and saving and time deposits. In addition, the scope of reserve requirements was extended to include licensed non-bank depository institutions as well as the definition of reserves to include foreign currency deposits so as to provide a level playing field for all licensed depository financial institutions. The liquid asset ratio has remained at 25.0 per cent of the banks' demand deposits and 20.0 per cent of time deposits since May 1991. The scope and reporting periods have been changed to reduce administrative cost.

In the external sector, measures included the abolition of exchange controls and the establishment of a market determined exchange rate system. In 1990, bank and non-bank foreign exchange markets (cambios) were allowed to operate. Partial convertibility of the Guyana dollar was introduced during the same year. Under the new system, two markets - the official and the cambio market co-existed. In February 1991, the exchange rates in the two markets were unified whereby the official rate was determined weekly based on the average free-market rates for the preceding week. In 1993, the Central Bank began inter-bank cambio market operations to achieve a closer integration of the official and cambio markets. In 1995, the Exchange Control Act was abolished.

A critical element of financial development is the payment system which has been a neglected area in Guyana. However, steps were recently taken to improve the payment system. In 1997, the National Clearing House (NCH) was established which prescribed the rules and procedures governing clearing and settlement of cheques and legislative amendment made to give the Bank of Guyana explicit oversight authority for the national payment system. In 1999, the Bank of Guyana developed and published a normative standard for machine processing of cheques which employs the Magnetic Ink Character Recognition (MICR) technology based on the Canadian Banker's Association (CBA) standard with a bank number identification scheme tailored for Guyana. Under this phase, simulation testing with sample cheques was undertaken followed by the testing of Bank of Guyana cheques presented by collecting banks, and the use of the Extract File by Bank of Guyana to effect direct posting to the Government accounts. Bank of Guyana deposits (i.e., "On- Other" cheques) were also tested.

Reducing the role of the state in the financial sector was seen as critical to improve competitiveness and efficiency in that sector. At the end of 1997, government ownership of financial entities was reduced to 25 per cent of the end-1993 asset value of the group of banks the government owned at that time. This was achieved through the sale of all government shares in the Guyana Bank for Trade and Industry and the National Bank of Industry and Commerce.

2.2.2 Policies to strengthen the prudential framework and bank supervision

Concomitant with the relaxation of structural regulations was a step up of prudential regulations. This was brought about through the enactment of the Financial Institutions Act (FIA) in March 1995. The legislation requires all institutions carrying on banking and financial businesses to be licensed by the Bank of Guyana and it centralises the surveillance responsibility over all licensed financial institutions with the Central Bank.

The improvement in supervision of financial institutions is primarily to promote the transparency of the status of financial institutions, to increase consumer protection and to ensure the safety and soundness of the system. The prudential requirements emphasise capital adequacy and asset quality. Capital adequacy requirements in line with internationally accepted standards have been implemented. In addition, commercial banks are required to follow the guidelines on the calculation of risk assets that the Bank of Guyana adopted from the Bank for International Settlements (BIS) guidelines.

The FIA also addresses issues such as: large exposures, limits on investment in non-bank companies, liquidity ratio, minimum capital for the setting up of a bank, licensing of new banks, insider lending, prohibited operations, loan classification, provisioning and other regulations that would limit risk as well as the concentration of ownership of financial institutions. The off-site surveillance and on-site inspection of banks were strengthened. In addition to the FIA, a revised Central Bank Act designed to increase the independence of the Central Bank in the formulation and operation of monetary policy was passed in parliament.

2.2.3 Policies to develop and deepen financial markets

Money market and long term debt securities are thin and secondary markets are almost nonexistent in Guyana. To encourage the latter development, the interbank market has been supported by the provision of the enabling framework (i.e. interbank transfer system) recently announced by the Central Bank. Similarly, the government encouraged capital formation and the growth of an efficient securities market, while protecting purchasers of securities and promoting ethical behaviour in the industry through the Securities Act 1998. The Act provides for the

registration of securities brokers and dealers, certain self-regulatory organisations and certain issuers of securities. Notwithstanding, there are virtually no capital account restrictions.

3.0   Effects of Reforms on the Financial System

There are tangible results from the reforms in many areas of the financial system which stimulated financial deepening, creation and strengthening of institutions and the building of a viable regulatory infrastructure. Reforms have caused the range of financial services to expand, especially in the form of deposits and credit instruments with the liberalisation and maintenance of positive real interest rates. Time and savings deposits increased sharply from G$3.8 billion in 1989 to G$18.4 billion in 1992 and to G$60.6 billion in 2000. As a per cent of broad money, quasi-money increased from 62 per cent in 1989 to 70 per cent in 1992 and to 71 per cent in 2000. This indicator suggests that reasonable interest rates, more branches, better service and more diversified savings instruments have contributed to a deepening of the financial system which raised aggregate savings.

In contrast to the quasi liquid assets to M2 ratio (see Table III), the standard financial depth indicator of the ratio of money stock to GDP declined substantially after 1989. It fell from 114.5 per cent in 1988 to 68.1 per cent in 1990 but increased to 79.1 per cent in 2000. In the 1990-2000 period, the ratio has remained relatively stable except for a sharp decline in 1991. Similarly, the ratio of financial assets to GDP, which declined from 165.7 per cent in 1988 to 102.7 per cent in 1989, remained relatively stable over the 1989-1997 period with the exception of 1992, and then increased to 108.8 per cent in year 2000. The decline in these ratios is attributable to the large devaluations of the Guyana dollar between 1989 and 1991 which resulted in considerable expansion of nominal GDP. Specifically in 1989, the Guyana dollar was devalued by 70 per cent to G$33 per US$1. In 1990, the Guyana dollar was further devalued from G$33 per US$1 to G$45 per US$1. In 1991, the Guyana dollar was again devalued from G$45 to G$101.75 per US$1. In addition, the high level of monetisation (ratio of M1 and M2 to GDP) prior to 1989 resulted from the "monetary overhang" that is associated with government deficit financing prior to the implementation of the market-oriented reforms. This was lowered and stabilised with the use of intermediate monetary targets during the period of macroeconomic

stabilisation, which has helped to create a consistent framework within which the financial sector can grow further.

Table III
Selected Monetary Indicators (1985-2000)

Year	Broad Money M2 % GDP	Deposit % GDP	Finan-cial Assets % GDP	Credit to Private Sector % GDP	Quasi Money (G$ Million)	Quasi Money % M2	Real Deposit Rate1	Real Lend-ing Rate2	Infla-tion Rate	Interest Rate Spread3	Aver-age Money Multi-plier
1985	115.6	109.2	188.7	31.1	1215.4	64.5	-3.1	-0.1	15.1	...	
1986	122.7	117.5	174.0	36.5	1453.6	65.1	4.1	7.1	7.9	...	
1987	105.2	117.5	155.7	32.3	1859.9	62.0	-16.7	-13.7	28.7	...	
1988	114.5	127.0	165.7	43.9	2462.6	59.8	-28.0	-25.0	40.0	5.5	
1989	68.2	78.3	102.7	27.8	3809.3	61.5	-87.8	-84.0	120.0	6.6	
1990	68.1	77.9	103.5	29.7	5982.9	63.6	-56.9	-54.0	85.0	4.9	
1991	48.4	56.7	74.1	19.8	10256.9	63.1	-41.1	-36.8	70.3	9.0	3.2
1992	64.6	76.1	96.1	21.5	18355.0	70.3	4.0	11.7	14.2	13.1	2.5
1993	67.4	75.9	87.8	20.7	23991.8	71.9	2.2	8.8	8.7	8.7	3.1
1994	61.9	63.7	74.3	27.8	26849.3	68.6	-3.3	3.8	16.1	9.8	3.2
1995	67.3	66.0	77.9	28.2	35332.7	71.6	4.7	11.0	8.1	9.9	3.2
1996	70.0	73.0	94.5	44.1	41543.1	72.1	4.5	12.5	4.5	10.7	2.7
1997	72.3	77.7	99.5	50.5	46930.5	73.0	4.2	12.8	4.2	10.9	2.8
1998	75.9	84.6	111.1	54.0	50874.9	74.1	3.4	12.0	4.6	11.2	2.73
1999	73.3	75.3	99.1	49.6	55431.7	72.0	2.6	5.4	11.9	9.9	3.04
2000	79.1	84.2	108.8	48.3	60618.5	70.9	1.2	11.0	6.2	10.4	3.02

Source: Bank of Guyana's: Statistical Abstracts and Annual Reports (various years)
... Not available
1/ Commercial Banks' three month time deposit rate
2/ Average prime lending rate
3/ Weighted average lending rate less average savings rate

Credit dispensation (see Table IV) since 1989 showed the bulk of commercial bank credit going to the private sector. Not only has the credit growth been significant in absolute terms, but the ratio too has improved. The share of credit to the private sector rose from 39.0 per cent in 1985 to 88.0 per cent in 1992 and to over 94 per cent between 1993 and 2000. With fiscal adjustment, the public sector which was the largest borrower, became a net depositor to the

banking system. The increase in private sector credit indicates that the banks have been diversifying their loan portfolio and looking out for new loan accounts. The sectoral distribution of the stock of private sector credit, however, shows that credit to business enterprises, including agriculture, manufacturing, mining and services, has declined from 86.0 per cent in 1989 to 83.0 per cent in 1992 and 2000. The share of credit to households has, however, gone up from 13.3 per cent in 1989 to 17 per cent in year 2000.

Table IV
Commercial Banks Credit Allocation (1985-2000)

Year	Banking System Net Dom. Credit[1] (G$Million)	Private Sector (G$Million)	Public Sector (G$Million)	Credit to Private Sector as % GDP	Private Sector Share of Total Credit	Business Ent. Share of Private Sect. Credit	Household Share of Private Sect. Credit
1985	1411	557	848	31.1	0.39	0.75	0.25
1986	1009	663	334	36.5	0.66	0.76	0.24
1987	1355	943	398	32.3	0.69	0.74	0.26
1988	2145	1559	580	43.9	0.73	0.84	0.16
1989	3219	2519	688	27.8	0.78	0.86	0.13
1990	4914	4109	791	29.7	0.84	0.84	0.16
1991	7092	6620	403	19.8	0.93	0.85	0.15
1992	9896	8680	903	21.5	0.88	0.83	0.17
1993	11277	10207	544	20.7	0.91	0.79	0.20
1994	15076	13799	221	27.8	0.92	0.77	0.23
1995	22190	20657	479	28.2	0.93	0.74	0.26
1996	37162	35864	284	44.1	0.97	0.83	0.17
1997	44540	42921	221	50.5	0.96	0.80	0.20
1998	50048	48872	411	54.0	0.98	0.80	0.20
1999	53885	52166	731	49.6	0.97	0.80	0.20
2000	53596	52195	469	48.3	0.97	0.83	0.17

Source: Bank of Guyana Annual Report (various years)
1/ Includes Non-Bank Financial Institutions

The key element of reform from the point of view of monetary management has been the transition to indirect instruments of monetary policy, largely at present through the regular

auction of Treasury bills. This has resulted in an improvement in the capabilities of the Bank of Guyana to regulate more effectively the growth in money and credit, via a market mechanism. The absorption of excess liquidity through the issue of Treasury bills has brought about better control and management of the money supply, as evidenced by the relative stability of the money multiplier during the 1992-2000 period. The auction mechanism helps to create competitive market conditions by compelling banks to critically examine their funds management practices and the manner of pricing their deposits and loans.

Banks have emerged as the largest holders of government securities and in particular Treasury bills. The public securities in the asset portfolio of banks has gone up from G$4.1 billion in 1990 to G$14.8 billion in 1995 to G$20.3 billion in 2000. This has been largely due to the high yielding and riskless investment character of Treasury bills as well as the fact that banks are unwilling to lend because, for instance, of a perceived increase in the risk of default that cannot be internalised by raising the cost of borrowing. It is important to note that the auctioning of Treasury bills for sterilisation purposes, which has improved the management of liquidity, has resulted in a high interest expenditure to the government of approximately G$35.0 billion during 1991-2000.

The greater freedom to acquire foreign exchange combined with a market-determined exchange rate have enhanced the availability of foreign exchange to the country. The volume of all foreign exchange transactions has grown considerably. Total recorded transactions increased from US$329 million in 1991 to US$1.29 billion in 2000. The cambio market accounted for US$946.5 million or 73.4 per cent of total foreign currency transactions. While the foreign exchange market remains shallow, there has been an increase in the volume of interbank foreign exchange trading which reached almost US$14 million in some recent quarters. Within this total the central bank has been very active. The cambio spread between purchases and sales rates and among banks and non-banks has been increasing (and moreso among bank cambios) as shown in Table V.

While partial internal financial and economic convertibility enhanced the transparency of intermediation of foreign exchange in the economy, efficiency is constrained due to the lack of

full financial market flexibility because complete internal convertibility, i.e. the legal right of residents to acquire and maintain domestic holdings of certain assets denominated in foreign currencies has not been granted. It is argued that complete internal convertibility may lead to currency substitution or dollarisation and consequent loss of revenue from seigniorage and inflation tax. Also, the authorities ability to conduct monetary policy may be substantially weakened because the foreign currency component of total money supply cannot be directly controlled and hence, the ability to control inflation.

Table V
Exchange Rate (1991-2000)
(Guyana Dollars Per US$)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A. Average Cambio Exchange Rate										
Buying	121.30	123.95	128.92	141.98	137.60	138.75	141.60	162.49	178.69	181.94
Selling	123.33	126.28	131.04	144.52	141.65	142.67	144.51	166.91	181.90	185.65
Spread	2.03	2.33	2.12	2.54	4.05	3.92	2.91	4.42	3.21	3.71
B. Bank Cambio Exchange Rate:			1994	1995	1996	1997	1998	1999	2000	
Buying	-	-	-	136.56	139.22	137.55	141.02	161.21	176.04	176.86
Selling	-	-	-	139.60	143.61	142.36	144.00	167.89	181.57	185.29
Mid Rate	-	-	-	138.08	141.42	139.96	142.51	164.55	178.80	181.08
Spread	-	-	-	3.04	4.39	4.81	2.98	6.68	5.53	8.43
C. Non-Bank Cambio Exchange Rate:										
Buying	-	-	-	138.76	141.30	139.32	140.43	163.60	178.80	182.40
Selling	-	-	-	140.71	143.42	141.41	143.00	166.40	181.60	185.20
Mid Rate	-	-	-	139.74	142.36	140.37	141.72	165.00	180.20	183.80
Spread	-	-	-	1.95	2.12	2.09	2.57	2.80	2.80	2.80

Source: Bank of Guyana

The deregulation of the domestic financial markets and elimination of capital account barriers were important internal factors that contributed to long-term capital inflows and the re-entry of private capital in Guyana. The latter, largely in the form of foreign direct investment, was influenced by increased investors' confidence in the economy. Relative stable real exchange

rate, liberalisation of the financial sector and decontrol of the foreign exchange market to allow repatriation of profit and remittances, provided investors with a stable and less uncertain business environment to make decisions. Consequently, foreign direct investment, which faced a long, dry period between 1976 and 1990, increased substantially in 1992 to US$138 million and averaged US$54 million annually between 1993 and 2000 as shown in Table VI. Direct foreign investment constituted the entire private capital inflows, replacing commercial bank loans, which dominated prior to 1985, and the nonexistence of portfolio investment.

Table VI
Foreign Direct Investment 1988-2000
US$ Million

Year	Private Sector Credit
1988	6.3
1989	10.2
1990	16.4
1991	28.0
1992	137.9
1993	63.3
1994	46.8
1995	53.4
1996	59.0
1997	52.0
1998	44.0
1999	46.0
2000	67.1

Source: Bank of Guyana

Financial intermediation costs have not shown significant positive adjustments with the liberalisation of interest deposit and lending rates, which are often used as a proxy for efficiency. Financial intermediation remains large because of a lack of flexibility in bank interest rates, although in the recent period a narrowing of the spreads has been observed. This spread went up from 4.9 per cent in 1990 to 13.1 per cent in 1992 and declined to 10.4 per cent in 2000. The

large spreads reflected administrative costs, loan loss provisioning, taxes, after tax profit margin and required reserves. Administrative costs are the major contribution to the spread, accounting for over 50 per cent of the total spread. It stands out across all banks, though for the small private banks, it is far more significant, averaging more than 75 per cent of their individual spread. The high administrative costs of these banks are partly explained by financial innovation, in the form of computerisation, ATM machines and debit card facilities undertaken by these banks. A consequence of financial innovation is the employment of qualified staff which resulted in a higher wage bill, thereby contributing to the high administrative cost. In addition, the fact that these banks do not have branches, except for one, their average fixed costs have been higher as their scale and scope of operation have been limited, thereby increasing intermediation cost.

Financial results of banks (Table VII) show that returns on equity and on assets, have fallen during the 1991-1999 period. The ratio of net profit to equity (ROE) declined from 53.5 per cent in 1991 to 27.7 per cent in 1993 and further to 6.5 per cent in 1999. Similarly, the ratio of net profit to asset (ROA) also declined from 9.1 per cent in 1991 to 4.0 per cent in 1993 and to 1.3 per cent in 1999. The decline in profit is explained by falling earnings. The ratio of operating income to assets declined from 21.3 per cent in 1991 to 14.2 per cent in 1999 while the operating expenses to assets ratio declined from 14.5 per cent in 1991 to 12.5 per cent in 1999. Moreover, the ratio of total operating expenses to total operating income increased from 68.3 per cent in 1991 to 72.5 per cent in 1993 and to 88.5 per cent in 1999. Provision for bad loans and narrow opportunities to invest excess resources also had an impact on bank profits. In 1991, the ratio of excess reserves to total deposits which was 1.03 per cent declined to 0.16 per cent in 1994 but increased sharply to 3.41 per cent in 1995. The relatively large ratio in 1995 is explained in part by the removal of interest earning on (the) special deposit (scheme) at the central bank at end 1994.

Table VII
Commercial Bank Performance Indicators (1991-1999)

Percent	1991	1992	1993	1994	1995	1996	1997	1998	1999
Net profit to equity - ROE	53.5	37.4	27.7	27.7	16.5	11.5	8.4	8.4	6.5
Net profit to asset - ROA	9.1	5.0	4.0	3.9	2.9	3.2	2.4	1.5	1.3
Operating income to assets	21.3	16.7	14.6	13.9	14.1	12.2	10.7	14.2	14.2
Operating expenses to assets	14.5	11.7	10.5	10.0	11.2	9.0	8.4	11.9	12.5
Operating expenses to operating income	68.3	70.1	72.5	71.9	79.7	79.7	77.9	84.3	88.5

Source: Bank of Guyana

The inability of banks to predict long term interest rates and assess risk also explains in part banks' excess reserves, falling profits and consequently, the wide interest rate margin. Specifically, when interest rates are forecastable, then the expectation theory of the term structure implies that long term rates should always reflect actual short term rates. If interest rates are unforecastable, then there will be mismatches between long and actual short rates. These maturity gaps cause problems for financial intermediaries who typically borrow short term and lend long term. In view of this, banks are reluctant to lend in the long term.

Prudential regulations and banking supervision have been strengthened considerably in recent years. As a result, the soundness of the banking system has improved. The capital base of banks has been enhanced since 1991. The level of capital increased from G$2.1 billion in 1991 to G$5.4 billion in 1995 to G$22.3 billion in 2000. As a share of total assets, capital increased from 8.2 per cent in 1991 to 9.4 per cent in 1995 to 19 per cent in 2000. The average risk-weighted capital adequacy ratio was well above the minimum 8 per cent required after 1995.

Non-performing loans have declined between 1992-2000. In 1997, it amounted to 14 per cent of total loans, much lower than the 22.7 per cent in 1995 and 40.69 per cent in 1992. Expressed in terms of total assets, there was also a decline from 10.4 per cent in 1992 to 8 per cent in 1997. The share of general provisions has decreased with a reduction in non-performing loans. However, provisions as a percentage of non-performing loans have decreased from 63.5 per cent in 1992 to 51 per cent in 1997.

4.0   Financial Intermediation and Economic Growth

4.1   Financial development indicators

There is no precise definition as to the meaning of financial development. However, several indicators of financial depth have been proposed in the literature. A number of empirical studies have used a variety of monetary aggregates to analyse the correlation between financial intermediaries and economic growth. The liquid form of monetary aggregates such as M1 or broader measures such as M2 have been used but these variables are merely related to the ability of the financial system to provide liquidity, or a medium of exchange rather than ability to allocate credit efficiently. The broader monetary aggregate of M3 or liquid liabilities of the banking system was used but it still contains M1 which is largely related to the provision of transaction services by the financial system and not with the channeling of savings to borrowers. In view of this, indicators of quasi-liquid assets where M1 is subtracted from M2 have been relied on.

In this study, the ratio of domestic credit to the private sector to GDP is used as a proxy for the degree of financial intermediaries. This monetary aggregate excludes credit to the public sector and represents the role of financial intermediaries in channeling funds to the private sector. It is also closely related to the level and efficiency of investment, and hence to economic growth. Further, in view of the fact that financial development has occurred in the banking system, credit is the better proxy for financial development broadly defined. The indicator of economic development is real GDP. The annual data used are for the 1985-2000 period, during which deregulation and reforms have been prominent.

4.2   Model specification

The Granger-causality technique is used to test the financial-led growth hypothesis to determine which sector, financial or real, leads in the dynamic process of economic development. Granger's definition of causality between any two variables could be represented as follows: if X (credit) causes Y (GDP), then changes in X should precede changed in Y. Therefore, X should help to predict Y and Y should not help predict X. If X helps to predict Y and Y helps to predict X, it is more likely that one or more variable are in fact "causing" both X and Y. in order to test whether these conditions hold, Y is regressed against lagged values of Y

and lagged values of X and then Y is regressed only against lagged values of Y. In log-linear form, this can be expressed as follows:

$$\ln Y_t = \sum_{i=1}^{m} a_i \ln Y_{t-i} + \sum_{i=1}^{m} b_i \ln X_{it-i} + \varepsilon_{1t} \tag{1}$$

$$\ln Y_t = \sum_{i=1}^{m} a_i \ln Y_{t-i} + \varepsilon_{2t} \tag{2}$$

The null hypothesis that real GDP (Y_t) does not cause credit (X_t) is expressed as

$$\ln X_{it} = \sum_{i=1}^{m} a_i \ln X_{it-i} + \sum b_i \ln Y_{t-i} + \varepsilon_{3t} \tag{3}$$

$$\ln Y_{it} = \sum_{i=1}^{m} a_i \ln X_{it-i} + \varepsilon_{4t} \tag{4}$$

The Augmented Dickey-Fuller (ADF) test is used to establish evidence and degree of cointegration of each variable. The ADF statistics suggest that all the variables are integrated of order one i.e. without a time trend. These results provide a good ground for employing the case of a cointegrated technique in order to test for the existence of a stable relationship between real GDP and financial sector development (X_i) ratio of real private sector credit (PSC) to GDP.

Following the results of the cointegration test, the Granger-causality test is conducted using the error correction coefficient as specified in the following form:

$$\ln \Delta Y_t = \sum_{i=1}^{m} a_i \ln \Delta Y_{t-i} + \sum_{i=1}^{m} b_i \ln \Delta X_{t-i} + ECM_1 + \varepsilon_t \tag{5}$$

$$\ln \Delta Y_t = \sum_{i=1}^{m} a_i \ln \Delta Y_{t-i} + ECM_2 + \varepsilon_t \tag{6}$$

$$\ln \Delta X_t = \sum_{i=1}^{m} a_i \ln \Delta X_{t-i} + \sum_{i=1}^{m} b_i \ln \Delta Y_{t-i} + ECM_3 + \varepsilon_t \tag{7}$$

$$\ln\Delta X_{it} = \sum_{i=1}^{m} a_i \ln\Delta X_{it-i} + ECM_4 + \varepsilon_t \qquad (8)$$

Table VIII
Results of Integration Tests

Series	Series in levels		Series in first-differences	
	^tADF	Lags	^tADF	Lags
Real GDP	-0.32	1	-4.14*	1
PSC/GDP	-2.01	1	-3.15*	1

Notes: * denotes statistically significant at 5% level.

Table IX
Results of Cointegration Tests

Cointegrating Regression	^tADF	Lags	R^2
Real GDP = f(PSC/GDP)	-1.94	0	0.16

Notes: for 23 observations, critical values at 5% level +/- 3.15

Table X
Results of Granger-causality tests

Private Sector Credit/GDP			GDP/Private Sector Credit		
No. of lags	F Ratio		F Ratio		Causality
		Results fail to		Results	
1	0.006 (1, 23)	reject Ho	5.35** (2, 23)	reject Ho	X ⟶ Y
2	1.545 (2, 22)	reject Ho	3.01* (2, 22)	reject Ho	Y ⟶ X
3	1.402 (3, 21)	reject Ho	1.402 (3, 21)	reject Ho	Y ⟶ X

Notes: ** denotes statistically significant at 5% level.
       * denotes statistically significant at 10% level.

4.3   Empirical results

The results of integration tests for the two series used in the analysis, that is, real GDP (Y) and ratio of private sector credit to GDP (X) are presented in Table VIII. The null

hypothesis that the variable in question contains a unit root, the alternative being that there is trend stationarity in the variable in question. The Augmented Dickey-Fuller (ADF) tests suggest that all the variables are integrated of order one, i.e. they achieved stationarity after first-difference. Since the results indicated that the series are of the same order of integration, a test of cointegration is conducted. The results are presented in Table IX. The results detect no evidence of cointegration of the ratio of private sector credit to GDP at the 5 percent level of significance and suggest that there is no long-run relationship between the two variables.

The result of the Granger-causality tests, equations (3) and (4) are presented in Table X. The results suggest unidirectional Granger-causality running from economic growth to financial development[4]. With decreasing lag lengths, financial development (proxy by ratio of private sector credit to GDP) is caused by real output. Higher levels of economic growth can encourage the development of the financial services in the country. This seems obvious, given the underdeveloped state of the financial markets with limited range of financial instruments and conservative lending practices.

5.0   Policy Implications of Empirical Results

The empirical results, which suggest that economic growth promote financial development, has important policy implications in Guyana. The financial system, which is predominantly bank based, has been effective in mobilising savings as shown in Table III. However, the system has been constrained in its ability to allocate these funds into productive investments. The increase in the financial system's actual holdings of excess reserves and government securities[5] reflect credit rationing[6] which has been motivated by higher perceived uncertainty or risk of default. In such situations, the aim should not only be for policy to increase liquidity and force interest rates downward to stimulate demand for loans but to adopt policies that enable the financial system participants to deliver the services in which they specialise with maximum effectiveness. To this end, it is desirable to have infrastructural policy measures that could promote an efficient functioning system.

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[4] Using data for the financial liberalisation period after 1985, the Granger-causality results suggest a stronger unidirectional Granger-causality running from economic growth to financial development.

[5] These are issued for the sterilisation of excess liquidity.

[6] The incidence of credit rationing increased after 1996.

The ability of creditors to enforce claims is key to the development of an efficient financial system. On a regional comparison, Guyana's creditors' rights are neither specifically weak nor strong. But, there is evidence of the absence of restraints on the abuse of insider power to tunnel out (the appropriation of the firm's assets by insiders) the resources of a problem firm out of the sight of financial intermediaries. This makes creditors reluctant to provide long-term debt financing. Therefore, it is necessary that there is a strengthening of commitment compliance from individual agencies whereby creditors' rights can, in the event of default, be expeditiously and inexpensively exercised. The laws and legal practice in areas affecting finance would have to be updated and refined to provide legal protection in the form of adequate collateral laws and an effective judicial system to allow financial intermediaries to write strong contracts and to enforce them in the court of law. Notwithstanding, banks should continue to exploit their skills in the social function of project appraisal and monitoring and not only rely on taking collateral and its legal protection as a last resort.

Alleviation of the underlying information deficiencies that restricted banks from providing credit is important in fostering an efficient financial system. This requires improvement of the information infrastructure and technology that would provide for the collection, processing and sharing of information[7] about borrowers so that lenders can learn more about current and potential customers. With better and more information flows, banks would be able to identify and fund those entrepreneurs with the best chances of successfully implementing innovative products and production processes. As such, they would be able to partly escape the adverse selection trap which often leads to credit rationing. Sharing information can also reduce moral hazard by increasing the costs of delinquency and thereby disciplining borrowers. Consequently, this would help in reducing intermediate costs and improve loan availability.

Financial institutions would have to strive and adhere to international standards and best practices for the development of efficient financial intermediation. A high standard of prudential regulation would need to be maintained to ensure financial system efficiency without compromising safety and stability in the financial system. A balance would have to be

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[7] The sharing of information can also mean lenders lose some of the market power that goes with the information.

maintained between over-regulation which could inhibit growth and development of the financial system, and under-regulation which could undermine public confidence. Efforts would have to be directed to recapitalise banking institutions, managing non-performing loans, and providing incentives so that they become a catalyst in transforming and further developing the economy.

The improvement of operational efficiency and competitiveness of the banking system is necessary to reduce the high cost of borrowing as reflected through the intermediation spread in Guyana. This would require innovativeness, flexibility, product development and skill enhancement with partial focus on risk management capability (Ganga, 2000). Adequate control and systems need to be in place to ensure that there is no excessive risk taking that could result in adverse consequences. This need is heightened by the emergence of new risks from globalisation. Management systems are needed to measure credit and market risks so that appropriate measures can be undertaken in order to control the "value of risk" within prudent limits.

Guyana has faced difficult political problems stemming from pre and post election disturbances since 1997. These have affected business confidence and resulted in a reduction in access to credit, as the incentives for efficient and sound intermediation have been impaired. It is therefore imperative that political tensions be removed and public confidence in the political system restored and maintained to boost credit supply and private sector investments.

The successful implementation of appropriate economic policy framework is an important component to ameliorate constraining factors on credit. The policy framework must be conducive to restoring the international competitiveness of the domestic economy and recovering the historical trend growth rate. This will require the continuation of strong macroeconomic policies, deepening of structural reforms and enhancement of the social development agenda, with particular emphasis on education, health and the environment. Specifically, government will have to intensify its efforts in providing systemic support as outlined in the Guyana Poverty Reduction Strategy Paper (Draft PRSP 2001). These include policies for export and investment promotion, land reform, expanding the economic base, restructuring and modernising the traditional sector, developing new sectors to support growth

and good governance. These would undoubtedly restore confidence in the economic and political systems to stimulate economic growth and financial sector development.

6.0   Conclusions

This paper examines the empirical relationship between financial development and long-run growth by using the ratio of bank credit to the private sector to GDP as an indicator of financial development. The study suggests that there is a strong relationship between economic growth and financial development with economic growth preceding the development of the financial market. The results are consistent with the view that the causation between finance and growth depends on the depth and efficiency of the financial system.

In the post 1980's, Guyana experienced significant progress in financial deepening following financial reforms with the financial system remaining bank-based. Financial liberalisation led to mobilisation of higher levels of savings and time deposits, and expansion of the number of commercial banks. .The intermediation spread has been wide and the flow of credit to the private sector has been restricted, as reflected through the holding of high levels of excess liquidity and government securities. Together, they point to a low level of financial system development.

There is an urgent need to develop the financial system so that participants can deliver the services in which they specialise with maximum, effectiveness. Reforms in creditor rights need to be adopted to enforce security interests in financial transactions. In addition, an appropriate framework has to be developed to facilitate the sharing of information between financial institutions so as to reduce frictions in the credit market. The regulatory and supervisory framework would have to be enhanced to promote a stable and efficient system. Equally important is the adoption and maintenance of credible and sound macroeconomic as well as institutional policies. In this regard, political stability and avoidance of civil unrest are essential components.

BIBLIOGRAPHY

Bank of Guyana (Various Years). Annual Reports. Georgetown. Guyana.

Beck, Tornsten, Ross Levine, and Norma Loayza, 1999, "Finance and the Sources of Growth," Policy Research Working Paper (Washington, DC: World Bank), No. 2057.

Chandavarkar, Anand, 1992, "Of Finance and Development: Neglected and Unsettled Questions," World Development, 20(1), pp. 133-42.

Demetriades, Panicos, and Khaled Hussein, 1996, "Does Financial Development Cause Economic Growth? Time-Series Evidence from 16 Countries?" Journal of Development Economics, Vol. 51, No. 2, pp. 387-411.

Ganga, G. N., 1998, "Stabilisation and Financial Adjustment in Guyana," Money Affairs. CEMLA, Mexico City.

Ganga, G. N., 2000, "Credit, Excess Liquidity and Monetary Policy Issues In Guyana," Social and Economic Studies, Vol. 49, Nos. 2 & 3, pp. 199-224.

Goldsmith, R., 1969, "Financial Structure and Development," New Haven: Yale University Press.

Government of Guyana, 2001, "Poverty Reduction Strategy paper," Georgetown, Guyana.

Greenwood, Jeremy, and Boyan Jovanovic, 1990, "Financial Development, Growth and the Distribution of Income," Journal of Political Economy, Vol. 98, No. 5, 1076-107.

Gurley, J.G. and E.S. Shaw, 1967, "Financial Structure and Economic Development," Economic Development and Cultural Change.

Khan, Mohsin S., and Abdelhak S. Senhadji, 2000, "Financial Development and Economic Growth: An Overview," IMF Working Paper 00/209 (Washington: International Monetary Fund).

King, Robert and Ross Levine, 1993b, "Finance and Growth: Schumpeter Might Be Right," Quarterly Journal of Economics, Vol. 108, No. 3, pp. 717-37.

Levine, Ross, 1997, "Financial Development and Economic Growth: Views and Agenda," Journal of Economic Literature, Vol. 35, No. 2, pp. 688-726.

Levine, Ross, 1999, "Law, Finance, and Economic Growth,: Journal of Financial Intermediation, Vol. 8, Nos. 1-2, pp. 8-35.

McKinnon, Ronald I., 1973, Money and Capital in Economic Development, (Washington, D.C.:Brookings Institution).

Robinson, Joan, 1952, "The Generalisation of the General Theory," in The rate of interest, and other essays. London: Macmillan, pp. 67-142.

Shaw, Edward, 1973, Financial Deepening in Economic growth (New York: Oxford University Press).