

**ECONOMIC ASPECTS OF THE BUSINESS OF  
LIFE INSURANCE IN BARBADOS**

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**INTRODUCTION**

The life insurance industry plays a major role in the economic development of the Barbadian economy. Besides mobilising and allocating domestic financial resources, it also provides protection for individuals from the risk of economic loss. In spite of the importance of this industry, apart from the efforts by Francis (1977) Worrell and Prescod (1983), Craigwell and Haynes (1987) and Wood (1992) there has been little discussion on its performance in the Barbadian society. Moreover, Worrell and Prescod and Wood gave it only scant mention in their general review of the post-war financial sector and Francis was mainly concerned with its macroeconomic significance over the period 1972-1977. Craigwell and Haynes (1987) focus on establishing a demand for life insurance function.

The purpose of this paper is to update and extend previous works done on the life insurance industry in Barbados. In particular we not only look at the macro-economic significance of the industry but we also discuss factors affecting growth and development since 1964. In this regard then this paper fills the existing void in the financial economic literature of Barbados. In addition it is hoped that our results will contribute to the comparative study of finance and development in the Caribbean<sup>1</sup>. In section II, we outline the nature and development of the industry. Factors affecting the growth of the industry is presented in section III, followed by a discussion of the macro-economic significance of the industry in section IV. The final section relates to concluding remarks.

## II. TRENDS IN THE LIFE INSURANCE INDUSTRY

The life insurance industry is one of the largest private sector financial institutions in Barbados, ranking second only to the commercial banking sector. The Barbados Mutual Life Assurance Society, established since 1840, was the first local life insurance company to begin operations in Barbados. In 1964, the number of life insurance companies in Barbados grew to about 15. Today there are 12 such registered companies with foreign participation representing about 70%. Although the number of life insurance companies operating since 1964 has declined<sup>2</sup>, other indicators (eg size of assets), suggest that life insurance business has grown tremendously. Table I shows that total assets grew from \$12.2 million in 1964<sup>3</sup> to \$227.1 million in 1985 to 500.5 in 1991, percentage increases of 1861.5 and 220.4, respectively. In fact, assets rose by an average 15 percent per annum over the review period 1964-1991. In real term, assets augmented from 0.94 in 1964 to 3.92 in 1991, a jump of 3.17 per cent. Moreover, it is estimated that about one-fourth of the adult population in Barbados owned a life insurance policy in 1984 compared to about one out of every eight in 1964<sup>4</sup>. This reflects the increasing usage of policies as collateral (the number of policies rose by 4.7 percent between 1976 - 1984), the strengthening of the intermediation process itself, and the general rise in incomes.

Table I: TOTAL ASSETS AND PREMIUM REVENUES AT LIFE INSURANCE COMPANIES (\$ MILLION): 1964-1991

	1964	1971	1978	1985	1991
Normal					
Total Assets:	12.2	28.7	83.4	227.1	500.5
Real Total Assets	0.9	1.5	1.6	2.3	3.9
Premium Revenues:	3.0	7.1	16.2	38.9	75.8
Gross Domestic Product:	150.0	321.5	984.4	2180.6	2892.6

Source: Financial Statistics, Barbados Statistical Service and Annual Statistical Digest, Central Bank of Barbados, various issues.

Another indicator of the growth of the life insurance industry is the ratio of new policies to discontinued policies. It is estimated that this ratio for the period 1975 - 84 is about 2.9 suggesting that the life insurance industry is expanding. The number of discontinued policies, measured as the number of discontinued policies to those in force at the end of the previous year is depicted in Table 2. It is estimated that 7% of all policies were discontinued between 1979 - 81, this compares with about 8% between 1982 - 84<sup>5</sup>. The increase in the termination of policies resulted mainly from the build-up of assets of policy loans. Individuals tend to borrow on their policies when market interest rates rise above the fixed rates payable on policy loans. It is often cheaper to discontinue these policies when arrears build up and purchase new insurance than to erode the coverage on existing policies. In addition, termination of policies

can be attractive as the principal repayment is not mandatory and this individuals are able to maintain their discretionary income.

Table 2: THE NUMBER OF DISCONTINUED POLICIES

Period	Average Value (BD\$)		All Policies	% Discontinued All Policies <sub>t,t-1</sub>
	New Policies	Discontinued Policies		
1978	27340	17957	20365	n.a.
1979	34109	23628	22253	7.2
1980	37406	22658	24616	7.0
1981	40268	27442	27278	6.9
1982	44205	32732	29188	8.4
1983	45182	35911	30666	7.6
1984	44072	40285	31903	6.9

Source: Annual Statistical Digest, Central Bank of Barbados, various issues.

Note: n.a. - not available.

Changes in the size of premium income also provide a good numeraire for measuring growth. Total premium revenues expanded at an average annual rate of 12% from \$3 million in 1964 to \$38.9 million in 1985 to \$75.8 million in 1991 (see Table 1). As a percentage of GDP, life insurance premium receipts were 2.6 in 1991, 1.2 in 1985 compared to 1.6 in 1978

and 2.2 in 1971. This suggest that in recent times, premium revenue to GDP has been increasing. However, the growth in premium income has been less than proportionate to the rise in insurance coverage and while there is no available data on movements in premium rates it is reasonable to assume that this trend partly reflects a younger clientele. This trend could also reflect the different types of insurance. Some people prefer cheap term insurance to collateralise mortgages. Data on different types of insurance is unavailable.

### III. DETERMINANTS OF THE GROWTH OF THE LIFE INSURANCE INDUSTRY

The role life insurance companies play in an economy and the manner in which insurers meet their responsibilities are largely determined by the environment in which they operate. In this section we will discuss the effects that changing demographic and economic conditions had on the life insurance industry in Barbados. This section is largely based on the empirical findings of Craigwell and Haynes (1987).

#### DEMOGRAPHIC CHANGES

In 1964 37% of the population lay between 14-45 years old compared with 51% in 1985 and 65.7% in 1990. This growing proportion primarily consists of people who are beginning to establish families and careers and hence are acquiring greater financial responsibilities. This group provides a growing market for life insurance since generally these people wish to protect their families and growing financial resources. Table 3 shows the distribution of the population in Barbados by age groups for the years between 1964 and 1990.

**Table 3: DISTRIBUTION OF THE BARBADOS POPULATION  
ACCORDING TO AGE GROUP (thousands)**

Years	Age Group				65+	Total
	0-5	5-15	15-45	45-65		
1964	32.5	62.3	90.0	41.7	16.3	242.7
1971	25.5	63.1	93.7	40.9	20.6	243.8
1978	22.0	53.5	114.7	38.9	23.6	252.7
1985	24.3	46.0	136.1	35.7	26.7	268.8
1990	19.4	42.6	126.3	38.3	30.4	257.1

**Source:** Annual Statistical Abstract, Barbados Statistical Service, various issues.

**Note:** Draft estimates based on provisional 1990 census data.

The declining death rate prior to 1977 (see Table 4), through its impact on cost of life insurance, may have also stimulated life insurance sales<sup>6</sup>. This cost is based, in part, on the mortality rate, which if declining among insureds, mean that insurance companies receive fewer claims, and more insureds are alive for longer periods of time to pay for the cost of insurance. Therefore the cost of insurance can be reduced, which makes life insurance more attractive and more affordable for a larger number of people.

**Table 4: MARRIAGES, DIVORCES AND DEATH RATE IN BARBADOS  
FOR SELECTED YEARS**

Year	1964	1971	1976	1978	1980	1985	1987	1991
Death Rate	8.8	8.5	8.7	8.4	8.1	8.4	8.0	9.1
Marriages	909	1075	729	n.a.	1057	n.a.	n.a.	n.a.
Divorces	76	109	114	n.a.	195	n.a.	n.a.	n.a.

**Source:** Barbados Economic Report, Barbados Statistical Service Annual Statistical Abstract and Barbados Report on Vital Statistics and Registration, various issues.

**Note:** na - not available.

The above argument, however, may loose some validity for people who are 50 to 70 years old. This age group is less interested in buying life insurance since they have fewer concerns about the economic losses caused by unexpected death, i.e. their children have grown, their houses are paid for, and so on. Nowadays this group is becoming more interested in guaranteeing that they have enough money to live adequately in their old age. In response to their needs, life insurance companies have developed many forms of annuities which may be used in retirement plans. Annuities have risen from \$0.4 million in 1971 to \$2.7 million in 1975, \$7.3 in 1984 to 10.9 million in 1991.

More marriages end in divorce today than 27 years ago. In 1964, 8.36% of total marriages ended in divorce compared with (Table 4). Since divorce usually leads to a disruption of family's financial condition, increasing divorce rate can have a significant effect on life insurance companies. Frequently, the divorced man and woman need to economise in

order to live adequately. This oftentimes means that life insurance policies are surrendered or allowed to lapse.

More women are working now than ever before. In fact, women made up about 49.2% of the employed labour force in Barbados in 1991, 9% more than in 1975 when the earliest data is available (see Table 5). This statistic suggests that there are now more families with two incomes, hence greater disposable income than families of earlier decades. Thus, families are more concerned with financial planning and management and this makes them likely insurance customers. In addition, life insurance companies have been responding by providing insurance products such as joint life insurance and joint annuities, which are specifically designed for these two-income families. Data on the breakdown of type of insurance policy is unavailable.

Table 5: EMPLOYMENT BY SEX 1970-1984 ('000 PERSONS)

	Male	Female	Total
1975	48.7	33.4	82.1
1977	52.8	34.2	87.0
1984	53.2	39.9	92.1
1991	56.1	45.4	101.5
1992	51.3	44.8	96.1

Source: Annual Statistical Digest, Central Bank of Barbados, 1993

### CHANGING ECONOMIC FORCES

Changing economic conditions can greatly hinder or aid the life insurance industry. Prior to 1973, life insurance companies operated in a fairly stable economy. During this period of economic stability, interest rates on the cash value of whole life insurance policies is estimated to be about the same rates that commercial banks paid on their customers' accounts. Therefore, the cash value of life insurance policies provided a savings vehicle that was competitive with the savings vehicles of other financial institutions and life insurance customers tended to keep their policies in force. Such policies also provided insurance companies with a predictable source of money that they could invest to earn more money both for themselves and their customers.

Post 1973 witnessed a period of intense world wide inflation which increased the cost of using money and hence forced up interest rates significantly. This situation could have adversely affected the life insurance companies in several ways. Since these companies had millions of dollars invested in long-term, low-interest investments and the interest income earned remained relatively stable, they were operating at a great loss. Second, and simultaneously, policy owners may surrender their policies as well as borrow on the cash values of their life insurance policies and deposit that money with other financial institutions to earn much higher rates of interest. This latter problem would suggest that life insurance companies' assets were sold at a great loss and thus serious cash flow problems were prevalent. The available data do not suggest that the inflationary situation after 1973 had any perverse effect on life insurance assets. In fact, this latter period was the era of fastest growth.

## REGULATION AND TAXATION

Government has offered incentives to individuals to purchase insurance. This is especially beneficial for individuals with higher marginal tax rates but the claims cannot exceed one sixth of assessable income. As far as regulation is concerned Cherebin (1992) notes that supervision at present is restricted to the submission and review of periodic returns. However there are plans to increase the ..... and supervision of these instructions.

To aid occurrences arising from changes in economic conditions insurers had to take innovative steps. Today, any policy can be adapted to the policyowners' changing circumstances. Policy holders need not cancel the policy or purchase a new one to meet new needs. In addition to prevent policyholders from terminating their coverage, many insurers can increase the face value of policies already in force without increasing the premium rate.

## SOCIAL SECURITY BENEFITS

Social Security Benefits can act as a partial substitute for life insurance. In Barbados, this variable provided by old age pensions and social security has grown continuously from 40.8 million in 1969 to \$177.4 million in 1992.

## IV. MACRO-ECONOMIC SIGNIFICANCE OF THE INDUSTRY

Savings, investment and foreign reserves are three of the major macro-economic variables affected by the development of the life insurance industry in a small developing country like

Barbados. This section of the paper attempts to place in an analytical perspective these macro-economic aspects of the industry within the context of the national economy. Tax contribution of this sector would be another important effect but data on such is unavailable.

## MOBILISING SAVINGS

It has long been noted that growth in personal savings bears a relationship to the growth in national income. In fact, Keynes' absolute income hypothesis implies that there is a positive relationship between income and both consumption and savings. Hence a total increase in savings would trigger an increased demand for, and hence value of, the various financial assets. Table 6 shows a comparison of personal savings between commercial banks, insurance companies (life and non-life), national insurance board, credit unions, and the Public Finance Corporation. It is seen that the life insurance companies are the second most important mobiliser of household savings in Barbados.

**Table 6: COMPARISON OF PERSONAL SAVINGS BY FINANCIAL INSTITUTIONS: 1964-1985**

**BDS\$ MILLION**

INSTITUTION	YEAR				
	1964	1971	1978	1985	1991
Commercial Banks	74	286	646	1410	2160
Life Insurance Companies	12	29	83	227	500
Non-Life Insurance Companies	n.a.	7	21	74	142
National Insurance Board	n.a.	9	126	362	527
Credit Unions	n.a.	n.a.	2	29	190
Public Finance Corp.	n.a.	n.a.	n.a.	34	62

Source: Central Bank of Barbados, Annual Statistical Digest, various issues.

There are three basic reasons why life insurance companies are dominant institutions in augmenting national savings (see Bourne and Bailey (1977)). First, life insurance salesmen are highly mobile and cover a wide geographical area than do other financial institutions. Secondly, life insurance companies possess a greater degree of sales effort through their household visits and personal communication. Thirdly, the size and periodicity of premiums are no heavy burden to the policyowner since these payments are based on his level, as well as periodicity and

regularity, of his income. The importance of the latter set of factors cannot be overemphasised in the context of the Barbadian economy where low and irregular incomes are prevalent.

It is also important to note that insurance savings are long-term and act as a constraint on future disposal income. This implies that a savings habit is fostered and maintained since there is no desire to lose accumulated savings (i.e. surrender values of policies) policy lapses. Therefore life insurance may contribute to both the volume and stability of domestic household savings.

#### DOMESTIC INVESTMENT

It has already been noted that total investment by life insurance companies grew very quickly over the review period. It should be useful therefore to see to what extent these funds were invested locally and what kind of portfolio mix is preferred by these companies. This is the task of this subsection.

Because of the long-term contractual value of the life insurance business the investment portfolio mix preferred by life insurance companies usually consist of long-term securities, but at the same time, having high regard to the degree of liquidity needed for current claims (whether anticipated or unanticipated) and other expenses that may occur during the year.

It is in the area of short-term financing by way of Treasury Bill purchases that life insurance companies are remiss. Possible reasons for their reluctance to invest in these

convertible 'gilt-edged' securities could be two-fold. The far from autonomous nature of the majority of companies with regard to independent decision concerning investment policies; secondly, the great consideration about interest rate yield.

Within the period under study, the portfolio mix of life insurance companies in Barbados altered somewhat, mortgages and loans, always the largest segment of the asset structure except for the period 1967-1972, preserved a 30% - to 49% capture of total investment. Mortgages which account for about two-thirds of these loans are almost entirely for private dwelling<sup>7</sup>. This growth in mortgage lending has been encouraged by Government who allowed 100% interest deductibility.

Investment in government paper have not shown any rapid growth and their share, which was almost 30% in 1964 was less than 12% twenty-seven years later. Real estate was able to maintain a level between 13% -21% throughout the period. There are no mandatory controls on insurance companies<sup>8</sup> as there are on commercial banks and this pattern of investment is a direct result of the financial system.

By providing mortgage finance to households the life insurance companies have contributed directly to the development of the private housing industry. In addition, Williams (1985) has already shown that there exists significant correlation between gross fixed capital formation in dwellings and the supply of new mortgages by insurance companies. This suggests

the existence of some relationship between credit activities and the pace of development in the private housing industry.

In addition to constituting a significant proportion of total gross fixed investment, housing investment is an important industry which is a major generator of economic activity. Between 1964 - 1991 it accounted for approximately 6% of gross domestic product. Moreover, between 1976 - 1991 it employed 6 - 10% of the total employed labour force. One can therefore argue that the life insurance industry indirectly has an important influence on the overall level of economic activity.

The life insurance industry has also contributed indirectly to economic growth through its impact on government which generally provides the infrastructure for rapid economic development in small open economies like Barbados. In 1991 about 23% of Barbados' employed labour force was in the government sector. In the same year total government expenditure accounted for 38% of GDP. By participating in the market for Barbados government long-term securities, especially in the early period, life insurance companies have been an indirect generator of economic activity.

#### FOREIGN EXCHANGE RESERVES

In Barbados about 70% of the life insurance companies are subsidiaries of large firms located abroad. In effect most sellers of life insurance are foreign and buyers are local. This has unfavourable effects on a small open economy like Barbados through its impact on the

balance of payments. More specifically, foreign reserves are weakened because (i) of net outflow of reinsurance funds; (ii) it is necessary for those subsidiaries to repatriate dividends and profits to their Head Offices abroad; (iii) foreign insurance companies tend to have preference for investing in foreign securities which are more readily marketable and more easily available in terms of the desired diversity, volume, rates of return, maturity pattern and timing of issue. This preference in effect will also hinder the development of an indigenous money and capital markets.

Although no data on surplus funds repatriated to Head Offices and reinsurance premium remitted to and received from foreign insurers are available for life and non-life insurance companies separately, some insight can be gleaned from examining all insurance companies. During 1991 surplus funds repatriated amounted to \$20.7 million compared to \$14 million in 1976. Statistics for reinsurers in 1991 reveal that reinsurance premium ceded to foreign companies amounted to \$62.7 million. In contrast, reinsurance premium accepted by resident companies totalled \$48.5

It is interesting to note that investment and consumption expenditure have spill-over effect on imports due to the "openness" of the Barbadian economy (total imports account for about 70% - 80% of GDP between 1964 - 1991). Therefore when considering economic growth, government should dictate a policy directed towards restraining loans to finance consumption rather than those which finance capital formation.

## CONCLUSION

This paper looked at the development of the life insurance industry in Barbados between 1964 - 1991. It was found that not only did the changing economic factors influenced the industry's progress but socio-demographic factors played an important role. Furthermore, this study revealed that the growth in the industry significantly affected savings, the portfolio mix, and the Barbadian Balance of Payments position.

Given the growing preference of individuals to obtain some measure of insurance coverage, insurance companies should channel these large funds towards local, rather than securities markets, investment rather than consumption. Educated with ideas regarding what investment sectors should be given preference, the industry could make a greater contribution to the country's economic growth. This in effect may suggest some government regulation.

Further work should be done to expose the specific determinants for life insurance in this industry. In addition, there is a great need to quantify the demand for the life insurance in Barbados.

## ENDNOTES

1. Other studies for the Caribbean include Bailey and Bourne (1977), Odle (1972), Ramsaran (1983), and Francis and Lunn (1986), Bailey (1991) and Bachelor (1993).
2. A reassessment of international activities in other markets resulted in the decision of several insurance companies like Confederation Life and Manufacturers Life to divest themselves of Caribbean operations (See Manufacturers Life Insurance Company (1990) and Life of Barbados Limited (1991).
3. Published data for the period 1964 does not fully reflect the size of the industry as companies were delinquent in making returns. The range is calculated from the estimate that the 12 reporting companies accounted for about 76% of the industry. Odle (1972) stresses the difficulties encountered by researchers in obtaining consistent and reliable data on non-bank financial institutions in the Caribbean.
4. Data for number of policies only available up to 1984. These penetrations ratio (calculated as number of policies per unit of adult population) compare well with those of other Caribbean countries although somewhat below those of the more developed market economies. For the Bahamas, for example, Francis and Lunn (1986) estimate that for every household there are at least 3 policies.
5. Industry sources suggested that a 10% termination rate is acceptable.
6. Although the death rate (measured per 1,000 population) increased after 1987, only in 1992 did the rate of increase surpassed the 1964 level of 8.8.
7. In 1992, out of the twelve registered life insurance companies, seven are involved in mortgage lending, accounting for approximately 30% of total mortgage financing in Barbados (Cherebin 1993).
8. As Cherebin (1993) notes "Supervision at present is restricted to the submission and review of periodic returns". However, there are plans to increase the regulation and supervision of these insurance companies lending practices.

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