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LIFE ASSURANCE IN THE FORMER BRITISH WEST INDIES

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INTRODUCTION

THE Caribbean is usually taken to include the number of widely scattered islands in the Caribbean Sea, as well as four neighbouring mainland territories which, for historical reasons, are closely associated with one or other of the island groups. The islands comprise: three Republics—Cuba, Haiti, and the Dominican Republic; three former British Colonies which have become independent countries within the Commonwealth during the last ten years, Jamaica (1962), Trinidad and Tobago (1962), and Barbados (1966), and a number of other islands which continue to have some level of dependent relationship with one or other of the 'metropolitan' countries including Britain (the Windward and Leeward Islands, the British Virgin Islands and the Bahamas); France (Martinique and Guadeloupe), the Netherlands (Curaçao, Aruba, Bonaire), and the United States of America (Puerto Rico and the U.S. Virgin Islands). The Mainland Territories include the independent Commonwealth country Guyana (formerly British Guiana and independent since 1966), French Guiana, Surinam (Dutch Guiana), and British Honduras.

These islands and mainland territories are extremely heterogeneous in their history, their institutions, their physical size, their level of economic and social development, and their language, as well as in the size, characteristics and rates of growth of their populations.

However, for the purposes of this paper, we are only concerned with the former British West Indian territories excluding the Bahamas which in many ways is different from the remainder of the former British Commonwealth territories in the West Indies. The basic statistics about these territories are set out in Table 1.

The unit of currency in all territories is the Dollar. The £ sterling is equivalent to \$2·00 in Jamaica, \$4·00 in British Honduras, and \$4·80 in Trinidad and Tobago, Guyana and the Eastern Caribbean.

ORDINARY LIFE ASSURANCE

Ordinary life assurance has been transacted in the British Caribbean area for a surprisingly long time. The oldest local company still in existence is the Barbados Mutual which was founded in 1840. The Jamaica Mutual started operations in 1844 and the Demerara Mutual in 1891. These companies owe their creation to the extremely high extra premiums charged

Table 1. *Population, area, birth and death rates, rates of natural increase and gross domestic product for countries in the Caribbean*

Territory	Area in square miles	Population at 1960 census	Estimated population at mid-year 1968	Vital rates per 1,000 population (1965) Birth rate	Death rate	Natural increase	Gross domestic product at factor cost in U.S. $ per caput
Jamaica	4,400	1,610,000	1,913,000	38·9	7·9	31·0	531
Trinidad and Tobago	1,980	828,000	1,021,000	32·8	6·9	25·9	761
Barbados	166	232,000	252,000	26·1	7·8	18·3	478
Windward Islands							
Dominica	290	60,000	72,000	42·7	8·9	33·8	363
Grenada	133	89,000	103,000	30·5	8·5	22·0	323
St Lucia	238	86,000	108,000	46·4	8·7	37·7	341
St Vincent	150	80,000	93,000	43·0	9·5	33·5	283
Leeward Islands							
St Kitts, Nevis, Anguilla	152	57,000	56,000	32·7	9·8	22·9	350
Antigua	170½	54,000	62,000	30·4	8·4	22·0	417
Montserrat	32½	12,000	15,000	27·4	10·5	16·9	326
British Virgin Islands	59	7,000	9,000	26·5	8·8	17·7	—
Guyana	83,000	560,000	719,000	39·7	7·6	32·1	326
British Honduras	8,866	90,000	116,000	44·8*	8·0*	36·8*	—

* Rates are calculated on the 1960 Census and 1959–61 Vital Events.

by British companies when residents of the British West Indies applied to the United Kingdom for policies. Groups of businessmen combined together to form societies to issue policies at reasonable rates of premium with their personal guarantees that if mortality proved higher than expected, they would make up the loss. Very early in their careers, these companies sought advice from British actuaries and consequently avoided the pitfalls which beset mutual associations of this kind when they begin to accumulate assets. Woolhouse, Finlaison and Sprague were in turn actuarial advisers to Jamaica Mutual between 1844 and 1895.

British life assurance companies took little interest in the area, the only exception being the Standard Life which opened branches in Jamaica and Trinidad in 1847. For many years the Standard did more life assurance business in the area than any other company. However, some of the large North American companies (mostly Canadian) have opened branches in all the larger islands and today these companies transact more than half the new life business. In Trinidad, for example, of the 22 companies transacting life assurance business, 7 are Canadian, and these did just over 60% of all the new life business transacted in 1967.

Finally, in recent years, a number of new local companies have been started, often by successful life assurance salesmen. Unlike the older local companies which were all mutual, these developed as proprietary offices and usually offered other types of insurance besides life. Because of insufficient capital and rapid expansion, some of these companies have found themselves in financial difficulties and have had to be taken over by larger companies domiciled in the United States.

It is difficult to obtain reliable statistics of the growth of the business in each territory because it is only recently that Insurance Departments have begun to be set up by the West Indian Governments. In due course, these will publish insurance statistics but so far very little has emerged. Many of the local companies disclose their new business figures but do not subdivide them by territory. The branches of British and North American companies do not, in general, disclose their West Indian figures. There is clear evidence, however, of a very large expansion of life assurance business all over the West Indies.

TYPES OF POLICY

The first companies transacting life assurance business in the West Indies were all modelled on British lines. The mutual companies allocated their profits as compound reversionary bonuses and the business written during the first fifty years of this century consisted mainly of endowment assurances with profits. This was encouraged by full income tax reliefs on premiums up to one-sixth of income assessable to tax.

When the North American offices entered the area, they introduced North American sales techniques. Policies are sold to provide life assurance protection for dependents, rather than as an investment with life cover as a secondary advantage. Whole of life assurance is now the most widely sold type of policy in the West Indies. In Trinidad and Tobago, for example, it is known that whole of life policies constitute about 75% of the new business written.

Competition developed to provide the maximum amount of immediate life assurance protection at the minimum cost. Participating whole of life policies with large bonus loadings for compound reversionary bonuses in the premiums and low immediate cover were unsuitable and comparatively few are now written. In its first phase the competition was for non-participating whole of life business and a great quantity has been and is still being written.

More recently, however, ingenious combinations of participating whole of life and decreasing term assurance have been developed which, if expectations of profit are realized, give the promise of greater protection than the non-participating policy for the same premium. The dividends are applied as single premiums to secure additional sum assured to take over as the sum assured under the decreasing term part of the policy reduces. If dividend expectations are not realized the policyholder can increase his premium to make up the shortfall in the amount of his cover.

Companies not able to adopt this type of policy have managed to offer some competition by offering participating policies with Family Income Benefit riders although these are clearly less advantageous than a policy where the benefit is payable in one lump sum on death. The rider however provides that the instalments can be commuted to a lump sum but the agent canvasses on the basis of the total of the instalments and not on the reduced commuted sum.

Although there is such a concentration of effort on immediate cover for dependants, the North American type of participating contract with its relatively low bonus loading is also a saleable product to those who are interested in providing for old age as well as immediate cover for dependants. The salesmen will point out that the whole of life policy provides a substantial sum on retirement at age 60 or 65 through the guaranteed surrender values and the accumulation of dividends if by that time the need for cover has passed or is greatly reduced. Even if the client starts out by preferring an endowment assurance to mature at age 65, he is frequently persuaded in favour of whole of life insurance by comparisons such as that given in Table 2.

When allowance is made for the generous tax relief on premiums in most of the territories, and for the higher sum assured for a given premium the surrender values of whole life participating policies at age 65 represent a very attractive return for the net sum invested.

Most companies issue special policies, often with very complicated provisions and high sounding titles. Consulting actuaries frequently have to dissuade the managers of local companies from copying each new variety which comes on the market.

Table 2. *Comparisons of whole of life and endowment assurance estimated proceeds at age 65*

	Age at Entry							
	25		30		35		40	
	Whole of life	Endowment assurance	Whole of life	Endowment assurance	Whole of life	Endowment assurance	Whole of life	Endowment assurance
	$	$	$	$	$	$	$	$
Premium	600·00	600·00	600·00	600·00	600·00	600·00	600·00	600·00
Sum assured	37,889	27,222	32,700	22,896	27,817	18,822	23,353	15,027
Estimated accumulated dividends at 65*	24,401	26,296	17,135	18,202	11,544	12,046	7,450	7,589
Cash surrender value	21,180	—	17,560	—	14,159	—	11,023	—
Total value at 65	45,581	53,518	34,695	41,098	25,703	30,868	18,473	22,616

* These are cash dividends left with the insurance company to accumulate at interest.

In addition to the basic policy, all companies, following the North American precedent, offer a wide range of riders covering family income benefits, double accident benefits, waiver of premiums on disablement, income benefits on disablement, and where the basic policy is on the life of a married man, temporary cover for his wife and children, called Family Protector Benefits.

Policy documents are much more comprehensive and detailed than is customary in this country. In Trinidad and Tobago certain provisions are required by law and the Canadian offices model their policy documents on those used at home which are governed by the Canadian Insurance Act. The local offices in territories other than Trinidad and Tobago have followed suit because the policyholder in the Caribbean expects a complicated policy. He has a vague idea that a policy with 27 conditions is better than one with only 20.

Guaranteed surrender, paid-up policy and loan provisions are universal. Automatic non-forfeiture continues until the surrender value is exhausted. Rights to participation in profits are set out in detail, and dividends, where these are included in preference to reversionary bonuses, can be taken in cash, left to accumulate at interest, employed to reduce future premiums, or converted into additions to the sum assured.

Most policies contain settlement options which enable the policyholder at the maturity of the policy to take the proceeds as a life annuity, as an annuity-certain, or to leave them on deposit with the insurance company at interest. The guaranteed annuity and interest rates included in these options are such that the life office is most unlikely to regret their inclusion in the policy.

As was pointed out earlier, the content of a policy was influenced by North American practice. The options, usual in North American policies, whereby the policyowner can nominate one or more beneficiary with the right to change beneficiary at will, have been included in the policies issued in the Caribbean although there existed in all these territories the equivalent of the Married Women's Property Act 1882. This has led to some difficulty when the time came to pay the proceeds of a policy where there was a named beneficiary. There are two schools of thought on this subject. One group insists that the only types of beneficiary recognized in law are those mentioned in the Married Women's Property Ordinance, i.e. husband, wife, or child, so that any nomination outside this group has no effect in law. Therefore, the proceeds must be paid to the policyholder's estate. The second group argues that an insurance policy is a contract between the company and the insured and as such any instruction given by the insured to the company must be binding on the company. Both these groups are equally confident that if the matter is taken to court they will win. A test case has not yet been brought before the courts, and the matter still remains undecided. It is outstanding legal points like this which makes the drafting of policies in the West Indies a dangerous occupation.

One large international insurance company has for several years been writing a considerable volume of equity-linked business in the West Indies and there is no doubt that a market for this type of business exists. Some of the Canadian companies are beginning to offer equity-linked policies but they have special difficulties because of the necessity to comply with the investment provisions of the Canadian Insurance Act and in some cases there are restrictions on the transfer of life assurance assets to Canada for investment in Canadian equities.

The local companies are also starting to issue equity-linked policies. At present suitable local equities are in short supply. There are at present only 12 companies in Trinidad and Tobago and 39 in Jamaica whose ordinary shares are quoted. If, therefore, a large volume of equity-linked business is to be written, investment overseas will be necessary. This cuts across the need for these countries to control the export of capital and the growth of equity-linked policies may, therefore, be prejudiced by restrictions which are not needed in the United Kingdom.

In Jamaica where the Building Society movement is strong and is organized in the British manner, policies combining regular saving with a building society and decreasing term assurance with full life assurance tax relief on premiums, are already being issued.

Most companies, both local and foreign, transact group life assurance which is organized almost exclusively on North American lines. Many of these policies contain complicated 'experience rating' formulae which seem to leave the insurance company very little expectation of profit.

There is also keen competition for group pension business which is nearly always funded on a deposit administration basis rather than by deferred annuity contracts.

ORGANIZATION OF NEW BUSINESS PRODUCTION

Prior to the advent of the North American companies, salesmen had very simple contracts.

The Jamaica Mutual, for example, paid its senior representatives new business commission of 2% of the sum assured and its junior salesmen 1·5%. No renewal commissions were paid.

The North American system, when it was introduced, did not necessarily give agents a significantly higher remuneration per unit of premium but through better training, the use of sales techniques and more attractive policies, the salesmen found they could produce more and so obtain larger gross incomes. The prestige of the salesman was increased and he was encouraged by competitions to produce more. A device frequently used to help 'motivate' sales staff, is to put a photograph of the leading salesman each month in the local press.

With these attractions, the better salesmen of the local companies were induced to join the North American companies and competition developed in giving salesmen more attractive terms. The smaller companies, who could least afford it, had to offer the most generous agents' contracts in order to keep their sales personnel.

Table 3 sets out the rates of commission on the principal classes of business included in the current contract of a Canadian company operating in the West Indies. The commissions are expressed as percentages of a full year's premium.

Table 3. *Rates of commission included in the current contract of a Canadian company operating in the West Indies. Percentage of a full year's premium*

	Participating			Non-participating		
	1st year	2nd year	years 3–10	1st year	2nd year	years 3–10
	%	%	%	%	%	%
Whole life and endowments with more than 20 years' premiums payable	60	15	5	50	10	5
Endowments with 20 years' or less premiums payable	50	10	5	40	10	5

This is only the agents' remuneration. In addition, substantial overriding commissions are paid to supervisors and managers.

The bulk of the commissions are payable in the first and second years. This by itself can encourage over-selling so that the insurance company loses money on business where premiums cease during the first two years. To counter this, the agent's contract usually provides for a 'Merit Bonus' depending on the persistency of his business. For example, an agent with a lapse index of between zero and 3% will receive 50% of his first year's commision as a merit bonus. For higher lapse indices the percentage merit bonus diminishes until, for lapse indices exceeding 15%, there is no bonus payable.

It can be seen, therefore, that an agent with a lapse index of 3% or less who sells a whole of life participating policy receives in first-year commission plus merit bonus, 90% of the premium. When over-riding commissions are added, the total will exceed 100% of the first year's premium.

The lapse index is an approximation to the percentage of business written in a 24-month period which lapses during a period of 27 months, both periods starting on the same day. The lapse index on 1 December 1970 would be calculated from the number of policies written by the agent between 1 September 1968 and 31 August 1970 and the lapses from this business between 1 September 1968 and 30 November 1970. The 27-month period allows for the time lag in notifying and processing lapses—it is effectively a 24-month period.

The effect of offering merit bonus on the problem of reducing the lapse rate is debatable. It is argued that some agents will take a personal pride in keeping their persistency high with or without the special incentive. On the other hand, if the agent's attitude is wrong, his persistency will always be bad. The agent's contracts are so heavily weighted in favour of first-year commissions that salesmen may be able to earn as high an income by taking no trouble to secure only good business as by restricting their sales to qualify for merit bonuses. Whether they adopt this attitude or not depends largely on the training they receive from managers and supervisors. A manager who puts over successfully the need for good business can have a significant effect on the lapse rates of his sales force.

The managers and senior salesmen (sometimes called 'Supervisors') are required to recruit and train salesmen. They are compensated by being paid, in addition to normal over-riding commissions, a percentage of the trainee salesmen's commissions, including merit bonuses. It is through these extra commissions that the company invests in increasing or replenishing its sales force.

The new agent is advanced commissions during the first year and his progress is measured by the amount of debt he builds up during this period. There is usually a penalty on the manager or supervisor if his agents fail to 'validate'. This is to discourage the recruitment of poor agents.

A recent survey of lapses conducted by a North American company on its business in Trinidad is summarized below. For this purpose a lapse is defined as a policy where premiums cease after not more than two years' premiums have been paid.

	Policies issued	Lapses	% ratios of lapses to policies issued
By mode of premium payments			
1. Monthly	1,257	281	22
2. Quarterly	148	55	37
3. Half-yearly	225	49	22
4. Yearly	242	18	7
Total	1,872	403	22
Method of payment (monthly only)			
1. Salary deduction plan	738	129	17
2. Banker's Orders	504	149	30
3. Cash	15	3	20
Total	1,257	281	22
Age at Entry			
Under age 15	90	18	20
15–24	549	139	25
25–44	1,051	220	21
45 and over	182	26	14
Total	1,872	403	22

Although the figures given above can be used to show that there are some definite trends, they should not be used to draw final conclusions. This would require further analysis of the inter-group effect; for example, the effect age has on mode of payment. The approximations employed in arriving at these figures may have distorted the lapse rates slightly.

UNDERWRITING AND REINSURANCE

The stages leading to the acceptance or rejection of a proposal for an ordinary life assurance are basically the same as in the United Kingdom. The North American companies carry out their underwriting from head office, and some of the local companies obtain a free underwriting service from their reinsurers. Those who do their own underwriting are assisted by rating manuals prepared by the reinsurance companies supplemented by periodical instruction from visiting representatives of the reinsurance companies touring the area. Because of the delays which can occur before a proposal is accepted, most offices give cover for 90 days from the date of receipt of the proposal, provided the first two months' premiums have been paid and subject to certain safeguards when the proposal form reveals an adverse medical history or where there is subsequently shown to have been non-disclosure.

A substantial proportion of the business written by the new life assurance companies and by the smaller established offices is reinsured. Retentions are, however, increased from time to time because of the growth in the number of lives assured and because of increases in the average sum assured per policy. Reinsurance is almost always of the risk premium type and, where the business is sufficiently substantial, a profit-sharing formula usually operates.

Some companies have much lower retentions for business on seriously impaired lives and occasionally an office with problems of new business strain will reinsure everything in excess of an annual quota.

INVESTMENTS

Until recently, Caribbean life assurance companies had the same unrestricted powers of investment as in the United Kingdom. Not only could money be placed in any investments within the territory in which the business was written, but there was also world-wide freedom to invest subject only to any general exchange controls. The North American offices took advantage of this freedom to transfer from the West Indies most of the net income relating to West Indian policies thereby causing a serious drain of capital. In recent years, they have voluntarily reversed this policy in some territories because local investments, such as property and mortgages, had attractive yields. Investment locally of a substantial part of the assets has become compulsory in Trinidad and Tobago and is likely to become so in the other territories.

The old-established Caribbean companies invested a large fraction of their assets in the United Kingdom and they were slow to repatriate these on independence even though the benefits under their policies are expressed in local currencies and not sterling. The managers of some of these companies had an anxious time in the interval between the British devaluation in November 1967 and the local decisions to follow sterling. Most of the assets now remaining in the United Kingdom are equity shares. Very few local companies have any significant holdings of American or Canadian dollar securities. In earlier days this was because of exchange controls but more recently this has been mainly due to the dollar premium.

All companies operating in the West Indies have a much higher fraction of their assets invested in policy loans than is customary in the United Kingdom. This is not only because salesmen emphasize guaranteed cash surrender, and consequently the loan facilities, much more than in Britain but also because loans are automatically created when policies are kept in force by non-forfeiture. For example, in Trinidad and Tobago at 31 December 1968 about 12% of the assets of foreign-owned companies and 15% of local companies consisted of policy loans. However, in some companies the proportion exceeded 25%.

Until recently, most companies included a fixed rate of interest, commonly 6%, in the loan condition of their policies and there are large numbers of these policies still in force. Even on more recently issued policies without this guarantee, the rate charged is usually well below the rate of interest charged on mortgages. In Trinidad and Tobago, policy loans are currently being made at 8% whereas a mortgage to a borrower with a first-class credit status carries a rate of interest of 9½%. This is unfortunate because policy loans are usually for small amounts and expensive to administer.

Because policy loans can be obtained on demand, the managers of insurance companies have to keep funds available and to be careful not to commit all the new money they expect to receive irrevocably to large programmes of permanent investment, such as property development, which may be much more advantageous than policy loans. The demand for policy loans has been stimulated by the restrictions which Governments have had to place on bank lending in order to control credit and Ministers of Finance would like very much to control policy loans also. They cannot, however, do this without legislation and this they have so far not found to be feasible. It is difficult to see how legislation can be effective because policyholders desperate for cash would be driven to surrender their policies.

There is a wider disadvantage to reliance on policy loans. These are usually taken to meet current expenditures as is demonstrated in Trinidad and Tobago where there are three peaks in policy loans during the year—preceding Carnival, August holidays, and Christmas. For economic reasons these should be discouraged as they are in fact dis-savings. The funds of an insurance company should be used principally for long-term investments and should not be used to finance consumer credit which should be left to the banks and discount houses. However, because of the guaranteed loan provisions in the policy as well as maximum rates of interest, the insurance companies are helpless in this respect.

Insurance companies contribute substantially to Government loans which until recently had to be offered on terms more favourable to the borrower than British Government new issues. The latest issues of Government stock in each of the principal territories were made on the terms shown in Table 4:

Table 4

Territory	Date of issue	Nominal amount $ million	Rate of interest %	Redemption dates	Redemption yield at issue %
Trinidad and Tobago	December 1970	8	8	1990–95	8·65
Jamaica	July 1970	Unlimited	7¾	1988	8·07
Barbados	November 1970	5	7¼	1985	7·63
Guyana	October 1970	6	7	1980	7·0

A high proportion of the remaining money is invested in mortgages. There seems to be an inexhaustible demand for mortgages on residential property. In Trinidad and Tobago at 31 December 1968 about 21% of the assets of foreign-owned companies and 36% of the assets of local companies consisted of mortgages. Two local companies exceeded 60%.

Mortgages are usually for 12 to 20 years and are granted up to not more than two-thirds of the surveyor's valuation. Defaults are very rare. Both the amortization and endowment assurance methods of capital repayments are employed but the former method is the more popular. Some companies will not lend unless the mortgagees are also holders of substantial policies.

As mentioned earlier, local equity shares are in short supply and transfers of ownership are rare. This is mainly due to the absence of properly organized stock exchanges. Jamaica has had a stock exchange for 7 years and now records an average of 100 transactions a day. Because of the absence of a properly organized market, the purchaser of equities has to take into account the possibility that should he wish to sell he may be unable to obtain a reasonable price because there does not happen to be a willing buyer at that particular time.

It is, however, expected that the number of equity issues will increase as new industries are developed and some of the larger privately-owned companies make offers to the public. The development of equity-linked policies and the creation of local unit trusts should help to provide the conditions necessary for active stock markets.

Only a relatively small fraction of life assurance assets is invested in real estate. For some companies the only property held is the freehold of the head office building. The older-established local offices could have made very substantial profits if they had invested regularly a fraction of their new money in land or property. This was, however, probably considered to be too speculative an investment requiring considerable administration and needing the accumulation of comparatively large sums before purchases could be made. It is only in recent years that the price of land in the vicinity of the towns has rocketed and the rents to be obtained from office, shop, and residential property have shown such attractive yields with prospects of growth on rent revisions.

Only for Trinidad is it possible to obtain statistics showing the investment in the various classes of the assets relating to policies issued in the island. The policy reserves and the distribution of the equivalent assets are shown in Table 5.

Table 5. *Distribution of locally invested assets as at* 31 *December* 1968 *in respect of Trinidad and Tobago life assurance policies*

	Foreign-owned companies		Locally-owned companies		Total	
Category	Amount	% of total	Amount	% of total	Amount	% of total
TRINIDAD AND TOBAGO SECURITIES	T. & T. $ (000s)		T. & T. $ (000s)		T. & T $ (000s)	
Government securities	24,895	33·2	4,054	17·0	28,949	29·3
Mortgages	27,956	37·2	10,272	43·2	38,228	38·7
Real estate	2,272	3·0	825	3·5	3,097	3·1
Policy loans	15,514	20·7	4,428	18·6	19,942	20·2
Cash and miscellaneous	4,438	5·9	4,210	17·7	8,648	8·7
Total	75,075	100·0	23,789	100·0	98,864	100·0
Total policy reserves	132,222		28,824		161,046	
Percentage of policy reserves invested in Trinidad and Tobago		56·8		82·5		61·4

HEAD OFFICE ORGANIZATION

The managers of most of the new local companies came into the life assurance business as salesmen and consequently in their early years these companies tended to be weak on the accounting and administrative sides. The importance of accurate policy records and of the regular reconciliation between premium receipts and business in force has not always been fully realized. There have been instances where the accumulation of errors over a period of years has resulted in a company becoming uncertain as to which policies are still in force and as to the dates up to which premiums have been paid. Such a situation is exceedingly difficult to retrieve. Similarly, a loose administrative system can result in automatic loans granted under the non-forfeiture provisions remaining in the balance sheet after the surrender of the policy or after it has been written off at the end of the non-forfeiture period.

Fortunately, such glaring instances are now a thing of the past but most local companies still find it hard to obtain sufficient competent administrators and clerical staff without which it is difficult to maintain a high standard of accuracy. There is a constant drain of secretaries, typists, punched card operators, and well-educated junior administrators to North America so that many companies move from one staff crisis to another.

Pressure is, therefore, strong to transfer the routine clerical operations to the computer but most of the companies are not large enough to operate a computer of their own. Assistance can be obtained from computer bureaux which are very anxious to obtain this 'bread and butter' business. Before he hives off a whole section of the work, such as the preparation of renewal notices and the accounting for premium receipts, the manager has to be satisfied that the bureau will be able to maintain a high standard of competence. Any failure in this respect is likely to lead to endless complications.

As policies and agents' contracts become more complex, and Government requirements more numerous, the burden on the higher management increases. Probably the greatest potential barrier to the efficient expansion of the local companies is the shortage of candidates with management potential. Efforts are being made to remedy this shortage. Local insurance institutes affiliated to the Chartered Insurance Institute have been established in the four major territories and these provide training courses for the examinations of the Chartered Insurance Institute.

In addition, the North American companies encourage their staffs to take the examinations of the Life Office Management Association which is the North American equivalent of the Chartered Insurance Institute. Training courses in management and underwriting are from time to time organized by the reinsurance companies which also provide training periods at their Head Offices for key executives.

Co-operation between companies on common problems is increasing. Each of the major territories has its equivalent of the Life Offices Association to which the British and North American companies operating in the area belong as well as the local companies. In the West Indies where the framework of legislation and taxation within which the industry operates is changing so rapidly the need for such co-operation is very great.

LEGISLATION

Some of the islands, e.g. Trinidad and Tobago, had as early as 1932 put on their Statute Book, Assurance Companies Ordinances which were an abridged version of the 1909 Act in the United Kingdom. However, Insurance Companies registered by the Board of Trade to do business in the United Kingdom were exempted from satisfying any of the requirements of these Ordinances. They were only required to submit an annual certificate from the Board of Trade stating that the appropriate returns under the United Kingdom Insurance Act had been made. All other companies were required to deposit £10,000 with the Treasury and that gave them permission to engage in all classes of insurance business.

Most of the North American Companies transacting life assurance business in the West Indies also had branches in the United Kingdom. By channelling their West Indian business through these, they were able to obtain the certificate from the Board of Trade exempting them from compliance with local legislation.

About fifteen years ago a large number of local companies began to appear on the scene. The Governments' powers under the Ordinances were found to be inadequate to protect the public against unscrupulous promoters, particularly in the field of motor insurance. Scandals of the type recently experienced in the United Kingdom occurred and the strengthening of the Governments' powers to regulate insurance companies became imperative.

The foreign companies were transferring large portions of the assets created by their life assurance business in some parts of the West Indies to London for investment, thereby increasing the scarcity of capital in the islands. Legislation was needed to ensure that a fair proportion of the savings generated through life assurance be retained in the territories where the business was written.

As was pointed out earlier, the North American sales techniques were adopted in the islands. These are subject to abuse if not strictly regulated as they are in North America. Therefore, similar controls were needed in the West Indies.

Generally, the principle of 'Freedom with publicity' which has been effective in the United Kingdom has failed to protect the insuring public in the area.

The Trinidad and Tobago Government was the first to tackle these problems in the Insurance Companies Act 1966. The main provisions of this Act so far as they concern life assurance business are listed below:

1. A Supervisor of Insurance is appointed in the Ministry of Finance and is charged with the responsibility of supervising the operations of the Insurance Companies. They must register with him and make deposits. Assets equal to the amount of the liabilities and contingency funds in respect of Trinidad and Tobago business must be segregated in a Statutory Fund held in trust. No transfers may be made from the Statutory Fund without the approval of the Supervisor.

2. The proportion of the assets of the Statutory Fund invested in Trinidad and Tobago is to be increased by stages from 36% to 60%. Not more than 25% of the Statutory Fund can be invested in equities and 10% in property.
3. Actuarial valuations must be made not less frequently than once in every five years. The forms to be completed for the Supervisor are similar in effect to the Fourth and Fifth Schedules under the British Insurance Companies Act 1958 but require considerably more detail. The Supervisor has power to investigate the affairs of any insurance company and may petition for it to be wound up. He can lay down a minimum actuarial basis for life assurance valuations. The Supervisor has to approve all tables of premium rates. These must be calculated by an actuary.
4. All agents must be licensed and nobody other than a licensed agent can canvass for insurance business. There are powers to deal with cases of misconduct.

In addition to the main items listed above, a number of very useful provisions were included to complete the legal framework within which the insurance industry operates. The following miscellaneous items relating to life assurance are covered:

(a) Procedures to apply where the age of the life assured is mis-stated or where proof of age is difficult.
(b) Insurable interest is defined. This includes parent on child and employer on employee.
(c) Surrender values and paid-up policy values except for immediate annuities and contingent assurances must be guaranteed after three years' premiums have been paid. Non-forfeiture is also compulsory where there is a surrender value remaining after deducting any policy loan, the outstanding premiums and interest.
(d) The payment of claims in difficult circumstances is made easier.
(e) The procedures for a transfer of engagements from one company to another, for the mutualization of a company, and for winding-up are laid down.

Barbados has recently passed The Insurance Act 1970, the provisions of which are very similar to those of the Trinidad and Tobago Insurance Companies Act. The main difference is that there are no provisions for segregated statutory funds for local business, but the powers taken to control the investments of life assurance companies, if fully used, could be more severe than those operating in Trinidad and Tobago.

A Bill to regulate insurance in Jamaica has recently been published and is expected to be enacted very shortly. This Bill contains most of the usual provisions for the regulation of all classes of insurance. It also contains a clause which, if it is enacted, will mean that separate corporate structures for short-term and long-term business will be required. This may make difficulties for life assurance companies which include double accident and disablement riders in their policies and pay the benefits from the life fund, if the clause is interpreted very strictly and the volume of this business is not sufficient to justify a separate company.

Apart from the Insurance Act, the Jamaican Government wants to encourage the local control of financial institutions by insisting that at least 51 % of the equity capital should be held in Jamaica. This may have even greater repercussions on the transaction of life assurance in Jamaica than the proposed Insurance Act.

It is also taking steps to regulate the issue of equity-linked policies. This is in conjunction with the power which the Government has taken to control investment in unit trusts. The only unit trust available to the public in Jamaica will be that sponsored by the Government.

Guyana will no doubt in its turn pass an Act to control the insurance industry but so far its interest has mainly been expressed in proposals for increased taxation.

A number of smaller islands have passed Insurance Company Acts based on that of Trinidad and Tobago. It is doubtful whether their Governments will be able to exercise efficiently the powers they have taken in these Acts.

Most of these small islands have no local insurance companies. The insurance market consists of agencies of the principal companies operating in the West Indies. The multiplicity of insurance acts may well cause the closure of most of these agencies because compliance would be too expensive in view of the small amount of business involved. A Company operating in Trinidad and Tobago, Antigua, St Lucia, and St Kitts, Nevis and Anguilla, would have the following pattern of deposits to make:

Table 6

Territory	Population (1968 estimate) (000s)	Deposits required: Life	Motor insurance	All other classes
Trinidad and Tobago	1,021	$250,000	$250,000 or 40% of Premium income whichever is greater	$120,000
Antigua	54	$250,000	$250,000	$120,000
St Lucia	86	At the absolute discretion of the Minister of Finance	At the absolute discretion of the Minister of Finance	At the absolute discretion of the Minister of Finance
St Kitts, Nevis, and Anguilla	57	10% of gross premium income plus $750·00 per annum insurance fee	10% of gross premium income plus $750·00 per annum insurance fee	10% of gross premium income plus $750·00 per annum insurance fee

These deposits are already in force. In addition, it is likely that the deposit in Barbados will be $200,000 for all classes of business, the Supervisor having power to increase this amount. The Jamaican Act also contains provisions for deposits. A Company operating in all the territories will have money locked up in many places in some of which there are very few opportunities for safe and profitable investment.

TAXATION

Prior to independence, tax reliefs on life assurance premiums and the taxation of life assurance companies were based, broadly, on the British system. The latest enactments were made in most cases between the wars. Changes in the United Kingdom subsequently were not embodied in local tax ordinances. This is most noticeable in the tax reliefs on premiums paid by the policyholders. Only Trinidad and Tobago has adopted, very belatedly, anything like the current system of tax reliefs on life assurance premiums in the United Kingdom which was instituted several years before any of these territories became independent.

In recent years, the 'interest less expenses' basis of tax assessment has been found to be unsatisfactory. It favours unduly the newly created companies and those which are expanding, especially where the commission structure requires heavy 'front-end' loadings. The loss of revenue in an area where life assurance is expanding rapidly is illustrated by an investigation made in the early 1960s into the tax paid by the life assurance companies operating in Trinidad and Tobago.

Year of account	Total interest earnings of all companies ($000s)	Tax paid ($000s)	Effective Average rate of tax (%)
1960	2,800	282	10·1
1963	3,200	539	17·1

More than half of the tax in each year was paid by two old-established companies operating on British lines, the remaining amount being divided between the other twenty companies, many of which paid no tax at all. For some of these companies the dates when they would start to pay tax seemed certain to be many years in the future even if there was no further expansion in their new business production.

To rectify this situation, the Trinidad and Tobago Government changed the tax basis so that at least two-thirds of the expenses are not eligible to be set off against investment income but maintained the low rate of tax of 15% while the corporation tax rate is 45%. Other territories have not yet followed suit although Jamaica has recently introduced a tax on premium income which will spread the total tax burden more evenly between the companies.

Table 7. *Tax systems in the main territories*

Description	COUNTRIES Trinidad and Tobago	Jamaica	Barbados	Guyana
1. Tax relief on premiums	*Policies before July* 1963 60% at full rate *Policies after July* 1963 40% subject to maximum of $800·00	Full rate up to $600 per annum	Full rate up to $1,300 or 1/6th of assessable income	Full rate up to 1/6th of assessable income
2. Tax on premium income	Nil	2% Foreign companies ½% Local companies	Nil	Nil
3. Tax on interest income:				
Life fund	15% on profit* less investment expenses	37½% on interest less expenses	20% on interest less all expenses	45% on interest less investment expenses
General annuity fund	As life fund	As life fund	As life fund	As life fund
Approved pension annuity fund	Tax free	Tax free	Tax free	Tax free
4. Tax on surrender values	5% of surrender value	Nil	Nil	15% of surrender value
5. Capital gains tax	Considered as part of profits from the investment of the life fund	Nil	Nil	20% of net gain if sold within 7 years after purchase

* Profit is defined as interest plus net capital gains.

Table 7 summarizes the tax systems in the main territories. It can be seen that there has as yet been no equivalent of the 1956 Finance Act provisions in the United Kingdom exempting the capital element in purchased annuity payments from tax. In all the principal territories the taxation of annuity funds is more onerous than in the United Kingdom before 1956 and, as a consequence, very few annuities are sold apart from those associated with 'Approved Pension Schemes' and 'Individual Approved Deferred Annuities'.

MORTALITY

The most recently published mortality table based on the experience of assured lives in the West Indies is the B.D. Table compiled by Pelham (*J.I.A.* **82**, 256). This was based on the combined experience of the Barbados Mutual and the Demerara Mutual which then operated in most of the British West Indies except Jamaica. The experience covered the period 1925–47. The ultimate table, which is the only one published, is based on the exposed to risk and the deaths at durations 2 and over.

At approximately the same time, Scrimgeour, Actuary to the Jamaica Mutual, prepared an aggregate table which has never been published based on the experience of that Society between 1927 and 1945. The rates of mortality of the two tables are compared in Table 8. The similarity between the two West Indian tables is remarkable.

Table 8

Age	B.D. ultimate	J.M.	A1924–29 ultimate
30	·0036	·0039	·0024
40	·0056	·0050	·0039
50	·0103	·0103	·0076
60	·0269	·0248	·0197
70	·0560	·0560	·0533

More recently, the Canadian offices operating in the area have combined to produce a comparison between the expected deaths according to the C.A.52–56 mortality table and the actual deaths in the West Indies during the period 1959–64. The C.A.52–56 Table has a five-year select period and is compared with A1949–52 in Table 9.

Table 9

	$q_{[x]}$		q_x	
Age	C.A.52–56	A1949–52	C.A.52–56	A1949–52
30	·00079	·00068	·00110	·00116
40	·00133	·00103	·00205	·00188
50	·00367	·00305	·00624	·00599
60	·00923	·00815	·01681	·01720
70	·02144	·02022	·04071	·04543

The results of the comparison for all territories are summarized in Table 10.

Table 10. *Comparison of actual and expected deaths by the C.A.52–56 table (all territories)*

Age group	Actual deaths as percentages of expected deaths: Durations 0 to 4		Durations 5 and over	
	%		%	
5 to 29	113	(48)	133	(27)
30 to 44	165	(113)	122	(166)
45 to 59	122	(110)	103	(502)
60 and over	—	—	94	(456)
Total	135	(271)	102	(1,151)

The figures in parentheses are the numbers of actual deaths.

The form in which the Canadian investigation is presented makes comparison with Pelham's table difficult. If, however, the descending scale of percentages in the right-hand column is considered to be reliable then weighted C.A.52–56 mortality rates can be prepared for the rough comparison in Table 11. The result, as expected, is to show a substantial improvement in mortality during the 24 years which have elapsed between the middle dates of the two experiences.

Table 11

Age	Weight	Weighted C.A.52–56 ultimate q_x	B.D. ultimate q_x
30	1·30	·0014	·0036
40	1·25	·0026	·0056
50	1·12	·0072	·0103
60	1·00	·0168	·0269
70	·95	·0387	·0560

The large excess of actual over expected deaths during the select period provides some evidence to confirm the impression that in the West Indies selection of lives is not as efficient as in the United Kingdom or North America. Non-disclosure is more prevalent and the quality of the medical examinations in some areas leaves much to be desired.

The Canadian experience is sub-divided by territories. The ultimate experience is summarized in Table 12.

The two significant features of this table appear to be the very light mortality in Puerto Rico and the relatively high mortality in Guyana. If the territories outside the former British West Indies are excluded, the combined figures for the remainder would show a slightly less favourable picture than that for all territories but the general pattern remains the same.

Table 12

Territory	Durations 5 and over: Number of deaths	Durations 5 and over: Actual/Expected %
Bermuda and Bahamas	68	114
Jamaica	247	109
Puerto Rico	214	70
Trinidad	261	118
Other former British West Indies	46	70
Dominican Republic and Haiti	120	106
Guyana and Surinam	195	144

It was feared that mortality in the Caribbean at ages over 60, which has never been adequately measured, would diverge significantly from British or Canadian experience and that as a result the recent large volume of whole of life business would prove unprofitable as the lives assured aged. It is too early to be certain that this will not happen but the Canadian experience is reassuring.

Almost ten years have passed since the mid-point of the Canadian experience and further improvements in mortality must have occurred. Although the A1949–52 ultimate table does not represent age by age the mortality of the West Indies, it should be safe enough to use for the calculation of premium rates. There is less justification for using the select table.

PREMIUM RATES

The general practice of the North American companies operating in the Caribbean has been to adopt the same premium scales as in their home territories. These have been calculated on a gross interest/gross expenses basis although the Canadian companies may have to change this because of the new basis of taxation. There is, however, a 2% premium tax in North America so that effectively the premiums charged in the West Indies are 2% higher than in North America. On non-participating business the companies evidently felt that the net differences in interest earnings, mortality, expenses, and tax between North America and the West Indies were tolerable in the interests of uniformity. On participating business these differences are allowed for in the dividends paid to policy-holders.

The use of their home premium rates by the North American companies has created difficulties for the local companies. They have found it very difficult to compete in the important area of non-participating whole of life assurance because they cannot aggregate their mortality experiences with more favourable territories or have their administrative expenses subsidized through not being charged the full weight of head office expenses. Table 13 shows the whole of life non-participating rates currently being offered by a North American office and a local company in Trinidad and Tobago and Jamaica. The net premiums assuming B.D. and A1949–52 ultimate mortality and interest at 3% are shown for comparison.

Table 13

Whole life assurance premiums per 1,000 sum assured

Age at entry	North American office annual premium*	B.D. ultimate net premium	A1949–52 ultimate net premium	Local office annual premium
30	13·6	15·7	12·2	15·7
40	20·2	22·9	18·4	22·5
50	31·3	35·0	29·1	34·2

* In addition there is a policy fee of $25.

The comparison between the rates of the local office and the North American office is less striking than if it had been made five years ago because in the interim most of the local companies have reduced their non-participating premium rates because of higher interest rates and better mortality experience.

As a consequence nearly all the whole of life business where the sum assured is really large has been written by the North American offices. The local offices have had to be content in the main with policies of smaller sums assured where the client seldom obtains competitive quotations. The local companies, particularly the mutual companies, have adapted themselves to the situation and obtain a fair share of this market.

Fixing the level of premium rates for a new local company is a very difficult task for the consulting actuary. Usually, however, the manager, who has frequently had sales experience, will have made a rough survey of the market and knows what plans, premium rates, surrender values, and other policy conditions he would like to adopt. He often brings with him the premium rates and policy forms of his previous company. These premium rates can be analysed and it can then be demonstrated to the client what allowances for expenses he would have if he adopted these scales. These margins are usually found to be inadequate for a new company when rough projections are made based on assumed levels of new business, commissions, and overhead expenses. A compromise has to be reached where the client accepts some competitive disadvantage and the consulting actuary has to be content with margins rather lower than he would like.

Most local companies operate in more than one territory adopting uniform scales of premiums, policy conditions, surrender scales and profit-sharing in all parts. Because of tax considerations and local legislation, this is becoming increasingly difficult to justify. Theoretically, the premium scales in Trinidad and Tobago and Jamaica should be widely different.

Examples using the actuarial basis set out below (chosen for ease of calculation) are shown in Table 14.

Mortality	A1949–52 ultimate
Interest	Gross—6%
	Net —Jamaica $3\frac{3}{4}$%
	Trinidad and Tobago $5\frac{1}{4}$% (tax at 15% but some allowance for expense relief)
Expenses	Gross—4% of sum assured
	10% of annual premium
	Net —Jamaica $2\frac{1}{2}$% of sum assured
	$6\frac{1}{4}$% of annual premium
	Trinidad and Tobago Gross expenses

Table 14

Annual premium rates per 1,000 sum assured

	Whole of life		Endowment assurance			
			15 years		25 years	
Age at Entry	Jamaica	Trinidad and Tobago	Jamaica	Trinidad and Tobago	Jamaica	Trinidad and Tobago
20	8·60	7·69	55·02	52·34	27·82	25·08
35	15·10	13·62	55·48	52·87	29·03	26·39
50	30·33	28·94	60·29	58·07	36·92	34·91

Most life offices in the Caribbean charge an annual policy fee currently about £3 for participating, and £5 for non-participating business. This system helps the office taxed on the interest less expenses basis with its expense problems. To an old-established Jamaican office, a policy fee of £3 is as good as a policy fee of £4·80 to an office whose expenses do not frank interest income.

In practice, the differences between the non-participating rates of Trinidad and Tobago and Jamaican local companies are not as great as Table 14 indicates. This is because offices in these territories with low tax rates on interest income do not employ so high a gross rate of interest in premium calculations as the offices in areas with a high tax rate. This may be sound because there is always the chance that tax rates will be increased and in any case there is not a great deal of competition between local companies for non-participating business apart from whole of life.

Premium rates in the West Indies, as in all the major countries of the world, are still calculated for orthodox business as if inflation did not exist. So far this assumption has proved satisfactory because the erosion of expense margins on the older business has been more than compensated by expansion in new business, light mortality, and higher interest earnings. For the future this assumption can be justified if it is assumed that inflation and high interest rates always go together. The interest margin in the premium basis then acts as an expense margin. The release of interest surplus especially on whole of life business however does not follow very closely any likely rate of inflation and it would be more satisfactory to use increasing expense margins accompanied by a relaxation in the rate of interest. Because of the concentration on whole of life business, much of it on young lives, the dangers of ignoring inflation seem greater in the Caribbean than elsewhere. There is little the consulting actuary can do about this because to assume a realistic expansion in expense margins as the duration of the policy increases would bring out premium rates out of line with the rest of the market. All he can do is to resist the temptation to relinquish the interest margins in the premiums and the valuation bases.

VALUATION DATA

The first and greatest valuation problem which the consulting actuary to a Caribbean insurance company has is obtaining reliable data. Some consulting actuaries attempt to solve this problem by keeping their own files of valuation cards. This ensures at least that the particulars of the individual policies are consistent with one another but the information about new business, claims, lapses, revivals, and alterations has to be supplied by the insurance company so that it is still not possible to be certain that the file of valuation cards represents at the valuation date the business in force. The most difficult companies with which to deal are those which have never had an actuarial valuation even though they may have been doing business for twenty years or more. In these cases it may be necessary to go back to the records of premium payments during the twelve months preceding the valuation date and account for every policy on which a premium has been paid during this period. This process is not a complete answer to the problem because it does not discover policies kept in force by non-forfeiture or which have been made paid up and for these it may be necessary to sort the valuation cards into policy number order and then trace the missing numbers to see whether any of these still constitute a liability. The staff concerned with policy records will usually go to infinite lengths to give the actuary what he wants.

It is not possible to carry out this basic exercise at each valuation and errors can occur in adjusting the data from one valuation date to the next. Experience indicates, however, that such errors are likely to result in too many policies appearing to be at risk by failure to remove lapses and surrenders, rather than too few. Such undetected errors as there may be in the final data are likely to result in over- rather than under-valuation.

BASIS OF VALUATION

The old-established mutual companies have until now had full net premium valuations at low rates of interest using mortality rates derived from their own experience. New business strain and increased overhead expenses may force these companies to adopt less stringent valuation methods in the future if they are not to make their existing policyholders meet too high a fraction of the cost of expansion. They are, however, well equipped to meet modern conditions because of the large reserves they have built up due to the automatic increases in their estates which have been imposed on them by the maintenance of the full net premium method of valuation for so long. Complicated problems may arise in the future in deciding just how far and how fast the valuation basis can be weakened in the interests of maintaining the rate of bonus or increasing it by small steps.

Pressure to relax valuation standards can result also from the operation of the Insurance Acts. All the old-established mutual companies operate in more than one territory and must obey the insurance law in each. This tends to destroy the unity of the company and make it effectively into a federation of separate units, one in each territory. A strong valuation means the setting up of high reserves in each territory which usually means the transfer of assets from the home territory to the other areas where the company started to write business at a much later date. It may be preferable to weaken the valuation and transfer the surplus created into a contingency reserve. This would diminish the need to build up assets elsewhere.

Such a situation has already arisen in Trinidad and Tobago where all the mutuals have branches but none is domiciled there. If the full net premium valuation at a low rate of interest is applied to the Trinidad and Tobago business this could result in a substantial transfer of assets from the home territory thereby exaggerating the capital investment by the company in extending its operations. One of the mutuals, which has recently commenced business in Trinidad and Tobago, has dealt with this problem by making a Zillmer adjustment equal to 2% of the sum assured and transferring the difference between the liabilities on this basis and those on the full net premium basis to a general reserve in the balance sheet. This has reduced very considerably the finance needed to provide the reserves for the Trinidad and Tobago business.

Most of the recently established companies have not had time to build up substantial estates and the choice of a valuation basis is very difficult. It is usually not possible to use a thoroughly safe valuation basis without revealing a very large deficiency. The choice has to be made on the assumption that the company will be able eventually to control its expenses, which implies that its volume of business will increase sufficiently to carry its overheads at an acceptable level. The danger is that to avoid a deficiency the valuation basis of a struggling company may be weakened at each successive valuation. There is however a limit to this process since the policy reserves must not fall below the surrender values.

Until 1966, when the Trinidad and Tobago Insurance Act came into operation there was no effective compulsion on the directors of an insurance company in any part of the Caribbean to take action when the actuary's report revealed a deficiency. In future, however, if the Government uses its powers under the Act, a company operating in Trinidad and Tobago showing persistent deficiencies can be forced to cease trading. Similar powers are being taken by the Governments in the other major territories.

This will make the actuary of a struggling insurance company effectively the judge as to whether it should be allowed to continue. This is not a very welcome responsibility because life assurance companies are very resilient and many which in the past appeared to be hopelessly insolvent are now secure and profitable. Inflation, high lapse rates, and the high cost of new business are making recovery much more difficult than in the past.

DISTRIBUTION OF PROFITS

The directors and shareholders of proprietary companies are naturally anxious to show profits and pay dividends as soon as possible. It is difficult to convince them that with rapidly growing assets there may be no profit to declare or that what has been earned must be left in the fund because of the capital needs of the developing business.

There can be disagreement over the division of profits between policyholders and shareholders, since a fixed division of disposable surplus is seldom laid down in the Memorandum and Articles of Association of the company. In the Trinidad and Tobago Insurance Act it is stipulated that the share of any surplus to be allocated to shareholders must not exceed 25% of the amount allocated to participating policyholders. Sometimes the shareholders are unwittingly aided by the accountants of the company who do not appreciate the difference between life assurance company accounts and those of other commercial companies. Items such as profits on the realization of investments or on revaluation of property are included in the accounts as 'Capital Reserve' or 'Shareholders' Equity'. It is not always possible to persuade the directors and auditors to change these titles, in which event it is necessary to obtain an undertaking that these sums will not be used exclusively for shareholders.

The fact that the participating policyholders are in reality temporary shareholders of the company with their 'capital' at greater risk than that of the shareholders, needs to be pointed out very frequently to some boards of directors who are inclined to put the interests of the shareholders before those of the policyholders. In some local companies, not necessarily recently established, the bonuses paid to policyholders have never contained any genuine profit element because the rate of bonus has never reached that allowed for in the premiums. Part of the bonus loading has found its way into the profit and loss account through the shareholder's portion of the surplus, and another part has been used to supplement the margins for expenses in the premiums.

The actuary of such a company is sometimes confronted with a *fait accompli.* The latest accounts reaching him may show that contingencies or investment reserves in the last balance sheet have been used for an issue of bonus shares or applied to develop another class of business. For this reason it is better to build up the 'free' reserves of the company so far as possible within the valuation rather than in the balance sheet. A gross premium valuation can be a more flexible instrument for this purpose than a net premium valuation. The fractions of the premium thrown off can be fixed such that the resulting surplus is almost exactly the amount needed to provide the bonus it is considered safe to declare and the equivalent proportion of the surplus for the shareholders. This action can always be justified by comparing the margin between office and net premium and the expense ratio even after allowance is made for new business expenses and any set-off of expenses against tax. It is invariably excess expenses which have made the basic contracts unprofitable and eaten into the bonus loadings.

It can be argued that this is inequitable to the present participating policyholders but the financial strength of weak companies has to be built up and this can only be done at the expense of one or more generations of participating policyholders. The alternative is to keep the valuation basis constant however inadequate the margins for future expenses appear to be, and leave the company permanently vulnerable.

Even when the consulting actuary uses a *fait accompli* of his own to match those to which he is subjected, his power in territories with no effective life assurance legislation is very limited. There was an instance where the actuary disappointed the directors in the amount of surplus he disclosed in his valuation (without in this case strengthening the basis) so that they were unable to increase the dividend. It happened that nearly all of the shares were held by the directors so they raised the directors' fees (these were not charged to profit and loss) to an absurdly high figure for the services which they rendered. When the actuary protested they refused to revert to the lower remuneration and he resigned. This did no good because the resignation achieved no publicity as would have been the case on the resignation of an auditor over a similar issue. They were easily able to obtain another actuary (not a member of the Institute of Actuaries or Faculty of Actuaries) who made no enquiries into the reason for the resignation of the previous actuary.

This example is given to illustrate the difficulties which can arise in the relationship between an actuary and the company for which he acts. The incident which led to resignation was the last of a series from which the directors had learnt that except in the limited sphere of the valuation the actuary could only exhort and had no power to enforce requirements.

Fortunately, such examples are rare and in general it is amazing how readily unpalatable recommendations will be accepted by boards of directors from actuaries in whom they have confidence. Confidence can only be built up over a period of years by regular visits, by careful explanations, and by a readiness to compromise on all but major issues.

INDUSTRIAL ASSURANCE

Industrial Assurance on any scale is a comparatively recent development in the West Indies. The market is dominated by one large company domiciled in the Bahamas but financed by American capital, founded about 50 years ago. Since the Second World War, encouraged by the absence of effective legislation, there have been many imitators and there is now a network of small companies throughout the West Indies transacting industrial assurance business. Most of them have taken over without alteration the premium rates and policy wordings of the Bahamian company—even in some instances including the condition:

METHOD OF VALUATION. The net premium and reserve on this policy are calculated in accordance with the American Experience Table of Mortality with an interest assumption of 4 per cent, Full Preliminary Term Method.

The tables in the rate book show the weekly premiums for a sum assured of $100. The range of choice is very limited, consisting of 10 and 20 year endowments, whole of life with premium payments limited to 10 and 20 years, and a children's policy with a term of 18 years. In addition there are policies covering hospitalization, surgical, and maternity benefits, and sickness and accident benefits.

Life assurance policies also include double indemnity for accidental death (with certain exclusions). Half the sum assured is paid on dismemberment.

The premium rates seem very high by British standards even when allowance is made for the 'fringe benefits'. Table 15 shows the weekly premiums for a sum assured of $100 charged by one of the larger companies compared with the net premiums (without modification for new business expenses) required to secure the benefit.

Table 15. *Comparison between weekly premiums charged by an industrial assurance company operating in the West Indies and net premiums on English Life Table No.* 12 *Males at* 4% *interest. Sum assured* $100

	10 year endowment		20 year endowment		10 payt. life		20 payt. life	
Age	Office premium	Net premium	Office premium	Net premium	Office premium	Net premium	Office premium	Net premium
	c.	c.	c.	c.	c.	c.	c.	c.
25	30	16	13	6	14	4	7	3
35	30	16	14	7	16	6	10	4
45	32	16	16	7	20	9	14	6
55	39	18	20	10	27	13	18	9

The policies contain guaranteed surrender values and paid-up benefit after 5 years' premium payments (three years in Trinidad and Tobago because of the Insurance Act). Some industrial assurance companies even grant loans within the surrender value.

Operating expenses are very high, the expenses of even the well-established companies usually exceed 60% of the premiums paid. This is partly due to large amounts paid out in new business commissions. Most of these companies increase their premium incomes each year substantially and, since lapse rates are high, the proportion of the weekly debit representing first-year business is always large.

The consulting actuary's role is usually confined to making the triennial or quinquennial actuarial valuations since the premium rates are traditional. The extract from the policy wording quoted above indicates the most appropriate rate of interest to adopt if the policy values are not to fall short of the surrender values. A detailed mortality investigation is seldom possible but since death claims are usually light, English Life Tables No. 10 or 11 (Males) are usually appropriate. A substantial allowance has to be made for first-year expenses even to the extent of using a net premium for an age 1 year higher and a term 1 year shorter than in the original policy although this is too much if there is a significant amount of 10-year term business.

The valuation of hospital, surgical, and maternity benefit policies and those covering sickness and accident benefits presents problems. The managements watch the ratio of claims to premiums and these usually average out to between 20 and 30% of the premiums paid. The policies are effectively non-cancellable so that actuarial reserves are necessary. Most of the business has, however, only been in force for a short period and after allowance is made for first-year expenses the theoretical reserves are very small. It is usually sufficient at the present time to make an arbitrary reserve such as half a year's office premium, the precise fraction depending on the average duration of the policies in force.

Profits at the present time are very small and it is difficult to see how the business can be made profitable if the yield on the assets is 4% because of the high administrative expenses and the unsuitability of many areas to concentration of debits. Interest earnings are, however, high so that it is possible that increasing profits will be made from excess interest earnings.

The policies are all non-participating and so far there is no indication of the voluntary sharing of profit with policyholders which has advanced so far in the United Kingdom.

THE FUTURE

The consequences to life assurance in the West Indies of independence are only now beginning to become apparent. Different legislation and tax treatment and strict laws governing the transfer of assets out of the country are replacing the relative uniformity and freedom from restriction which was the general rule before independence. In addition, there is pressure for the control of financial institutions to be local. In Jamaica, within a short time it will be compulsory for 51 % at least of the ordinary shares of all banks and insurance companies to be held locally. If these trends are continued to their logical conclusion, each separate independent territory will have its own handful of life insurance companies transacting business almost entirely within its own borders.

If this happens, the expenses of administration relative to the size of the premium income are bound to be high although the effect on the attractiveness of the policies may be mitigated by high interest earnings, generous tax reliefs on premiums, and, in some territories, light taxation of interest income. The reaction of foreign companies to the demand for local control has yet to be determined. Several Canadian and two British companies have ceased to transact business in Trinidad since the coming into force of the Insurance Act 1966. In Jamaica the local management and agency staff of one Canadian company has formed a new company which is 100 per cent Jamaican. This services the existing business in Jamaica of the Canadian company and writes new business entirely on its own account. This may serve as the pattern for other withdrawals by Canadian companies because they cannot under Canadian Insurance Law hold less than 51 % of the shares of a subsidiary company. The Superintendent of Insurance in Ottowa argues that where less than 51% is held then his powers to supervise the operation of the subsidiary must be transferred to another authority. This is causing some concern in the islands. Unless the Governments in the area can combine to arrange for the supervision of insurance companies on a Caribbean basis, there are likely to be more North American companies which will find it not worth while to transact business on such a fragmented basis.

With the conduct of life assurance becoming more and more local, British, Canadian, and United States consulting actuaries are likely, in time, to be replaced by local firms staffed in the main by nationals of the territory or by actuaries employed by the larger companies.

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ABSTRACT OF THE DISCUSSION

Mr A. Farncombe, in introducing the paper, referred to further developments in the West Indies since the paper had been written. In Jamaica, the Insurance Bill had been passed almost without debate and with no amendments of any consequence. The policy of the Government requiring local control of financial institutions was causing some concern and a number of different solutions were being proposed. Some companies were ceasing to write new business and there had been mergers with existing local companies. Another solution was to start a new locally registered company for the Jamaican business. The Minister's desire for local control of life assurance companies conflicted with his requirement that local companies should be adequately capitalized as the local capital market could not raise sufficient money to purchase 51% of the shares of a number of new local companies. The Minister realized that to insist on local control within a short period was impracticable and he was prepared to achieve his objective over a period of years. In one case, the whole of the capital was to be supplied in the first instance by a Canadian parent, which has undertaken to sell the majority of the shares to local residents over a period. Some foreign companies were, with government approval, postponing action.

In Trinidad and Tobago, there had been further examples of branches of foreign companies ceasing to transact new business and one large branch of a Canadian company was to become a local proprietary company. A decision to cease writing business in Trinidad and Tobago usually meant withdrawal from the Barbados market as well.

Guyana had recently passed an Insurance Act, similar in content to the Trinidad and Tobago Insurance Act, under which the proportion of assets to be invested in Guyana was 90% but few foreign companies were operating in Guyana.

Mr H. J. Jarvis, in opening the discussion, said that many of the problems which faced the manager of a West Indian life assurance company were similar to those found in other overseas territories. They would be familiar to actuaries of British companies who were connected with the activities of overseas branches in that sort of area. Some of the similarities arose from problems common to any developing area. The proportion of business written by local companies had been increasing, usually at the expense of overseas companies who might have been transacting business in the area for many years. Almost every country in the world was finding it necessary to restrict the outflow of capital which led to the requirement that an increasing proportion of assets of life assurance companies should be invested in the country where the premiums were paid, in addition to the desire to safeguard the local policyholder. Other common problems were linked to the shortage of experienced insurance personnel leading to high lapse rates and high expense ratios. Most local companies involved were either recently formed or, if older, were expanding more rapidly than in the past, if only because of inflation, so that for both categories the problems of new business strain were the main ones to be considered.

Whilst many people regarded the West Indies as a homogeneous area, there were very real differences in temperament and outlook between the inhabitants of the various islands, which in turn accentuated mistrust of each other and a wish for each island to be master of its own fate. Table 1 in the paper showed how Jamaica dominated the West Indies, its population being over 40% of the total. If a Jamaican or a Trinidadian had been away from home, it was much more likely that he had been to the U.K. than to any other of the major West Indian islands. The distances were vast as well: from Jamaica to Guyana was nearly 1,500 miles.

Carifta, the Caribbean free trade area, existed only in name so far. Coupled with separate legislation in each of the major islands, the possibility of having a large enough market in which to operate was becoming more difficult, with the exception of Jamaica and Trinidad. Unless the various islands were able to agree upon a system whereby a company complying with the insurance regulations in one island might operate in the others, he feared the growth of life assurance in the area might become stultified. There was a danger of each island insisting upon its own deposit requirements which would accentuate the local investment problem. In the West Indies, as elsewhere, the tendency towards greater local investment of life funds was having a profound effect. It had probably led to more companies deciding to withdraw from a territory than any other reason. If local investment were required and there were also restrictions on relative proportions of funds in different categories of investment, the idea of a common worldwide fund for an overseas office became illusory. For a mutual office, the reasons for operating in an overseas territory where a separate fund was required were even less apparent. The extent to which local investment was possible depended upon the availability of suitable opportunities. In the context of the West Indies, with the possible exception of Jamaica, completely local investment was not possible.

Another difficulty was in transacting equity-linked life assurance. Jamaica had a local unit trust but nothing similar existed elsewhere. If a policy was entirely linked to an overseas fund, it could be only on the basis of selling sufficient other business to maintain the various investment proportions in the fund required by local regulations. That was hardly prudent and some form of hybrid contract had to be designed which, while giving some equity element, still met the overall investment restrictions. Such a policy had been successfully sold in South Africa where the proportion of investment in equities was restricted. The danger was that the investment restrictions might become more stringent, with the authorities requiring a higher proportion of local investment or of fixed interest securities. Such a possibility was to be expected in many areas, including the West Indies, as the local economies developed.

In the paper, the authors referred to the difficulties of training and keeping head office staff and suggested that similar difficulties might be found amongst the civil servants responsible for enforcing the insurance legislation and its regulations. Those were common problems in most developing areas and the withdrawal of overseas companies with their expertise would accentuate it. It was especially true where salesmen were concerned and, in the West Indies, the influence of the Canadian companies was most noticeable. By their training programmes, they had created a reservoir of trained salesmen, not all of whom had stayed with the company which had trained them. As a result, the market as a whole had benefited as local companies had copied their methods and, of course, borrowed the personnel as well. The emphasis on North American methods had led to insurance staff sitting for North American examinations. Outside staff tended to take the Life Insurance Agency Management Association examinations, while the inside staff took the Chartered Insurance Institute examinations. That could cause problems unless the students were conscious of the differences between the North American and the British approaches to life assurance. The influence of the Canadian offices had led many of the local companies to seek staff with the same experience, if only to meet the competition. Similarly, many local companies had North American consulting actuaries and, of the many West Indian companies with which the speaker's company was in contact, about half preferred to deal with their Canadian office so as to have access to North American methods and thinking.

In the section of the paper on mortality, comparisons were drawn between the tables produced by Pelham and Scrimgeour, the Canadian CA 1952–56 table and the A 1949–52 table. The substantial improvements in mortality over the period coincided with similar improvement in other parts of the world, as was to be expected with the virtual elimination of infectious diseases as major causes of death, especially at the younger ages. On the basis of the figures shown, the authors had drawn the conclusion that A 1949–52 ultimate table was not unreasonable for premium rates in current conditions. He would not disagree as, although it had not been possible to investigate the mortality experience in any detail, his own company had a volume of risk premium reassurances in force where the premium rates, based on the A 1949–52 ultimate table, were adequate. Table 12 showed comparative mortality for the various islands and he could support the need for a more conservative basis for business arising in Guyana. The mortality experience of the Canadian companies might be lighter than that of the local companies taken together. The underwriters of the local companies were probably not so experienced as their Canadian counterparts, and standards of selection might be lower where the underwriters were more subject to pressure from the sales side, as often happened in smaller companies and countries. Furthermore, the mortality experience of the local companies' reassurance portfolio might be lighter than the business as a whole, if only because much of the non-medical business was not reassured.

No distinct pattern emerged in the underwriting of sub-standard lives, except perhaps that moderate degrees of overweight combined with hypertension seemed to be more apparent in the West Indies than in the U.K.

The authors had highlighted the problems, common to many young companies, over the accuracy of the valuation data and the choice of a valuation basis. Particularly for a first valuation, the accuracy of the data was difficult to determine and the result of the valuation difficult to analyse. Demonstrating solvency was almost certain to involve some degree of Zillmer adjustment since, as the authors said, it was the expense problem which was paramount for the newer companies. So far in the West Indies no minimum valuation bases were specified but there was a limit to the weakness of the valuation basis if guaranteed cash values existed. In the context of controlling the emergence of surplus, the authors had advocated the use of a gross premium valuation method for flexibility, but that could be dangerous if used for determining solvency.

Mr R. E. White thought the paper reflected the great and rapid changes which had taken place in the past few years in the nature of insurance, in the emergence of the former British West Indies as sovereign countries, in the background nature and the need for insurance control, and in the part which insurance played in the economy of a country. Had the paper been written in 1901 rather than 1971, he suspected the approach of an overseas company would have been that of tapping a new source of profit for its shareholders. That was the nature of things in those days. In modern times, while the objectives of the shareholders ought not to be overlooked, a trading concern was obliged to play its part in the economy of the country and to take the attitude of a responsible employer.

The paper dealt with the practice of life assurance in the various territories forming the West Indies. Table 1 gave the size and, by inference, the economic stability and needs of the different countries concerned. In some countries, such as Jamaica and Trinidad, a company had the opportunity to stand on its own feet but in others, because of size, no company could exist with safety as a completely local operation with security to its policyholders. A life assurance office could only be self-sufficient and independent in some of the territories and not in each one individually. Other territories were so small that local life assurance companies could not exist with safety for their policyholders. Another point which arose was the distinction between the needs and control of life (or long-term) and non-life companies. Non-life companies faced the possibility of a catastrophe with the necessity of moving money from one area to another to meet demands which suddenly occurred, whereas life assurance companies were faced with long-term investment to meet long-term obligations without the necessity to transfer money. Life assurance companies were looking for an adequate return on their investments rather than fluidity and their real problem was whether there were suitable local investments. Another issue at stake was the fundamental difference in conception and effect of the government requirements as between long-term and non-long-term business. Non-life offices, with their need to move money, were embarrassed by a requirement for deposits, whereas the life offices were embarrassed by the need to have a statutory fund which practically covered the whole of their liabilities. The only safeguard which the life assurance company had was in the bonus margin.

In the 1960s, new countries had tended to local legislation for the protection of local policyholders. He accepted fully the obligation that overseas companies doing business in any local territory should invest in local securities and in the local economy. There was a movement towards investing 60 or 70% of the life fund liabilities in local investments as a statutory fund, sometimes associated with limitations on the nature of the investments. Given goodwill, that was workable, but misused it could be intolerable. A life company had long-term commitments based on its long-term interest rates and compulsory local investment then required securities with an adequate interest and return, but also capable of ready realization and a ready valuation for balance sheet purposes. Some of the countries concerned met those requirements.

A fiscal difference between home and overseas companies arose from a differential tax factor or an absentee or withholding tax. That cast doubts in the speaker's mind on the statement that there was a differential of 2% between the premiums charged in the West Indies and North America. The speaker thought the withholding tax counterbalanced that. Inevitably an overseas-based company had to supply a service to the local office and required payment for those services. It was therefore wrong in principle to charge a tax on withdrawal of funds to meet a realistic cost of such a head office service.

The new countries had adopted the best, and sometimes the worst, of the laws and practices of the United Kingdom, the United States and Canada. Licensing of agencies was common in the United States and Canada and had been introduced in the new countries with advantage. Policy conditions tended to follow the Canadian pattern and sometimes they were in conflict with the United Kingdom situation, for example in the encouragement of life assurance in the Caribbean by a premium rebate, or in the use of the Canadian form of beneficiary or payee which could be changed at will.

The mortality rates quoted in the paper showed a mortality level higher than in the U.K. and, on his own experience, in Canada. The experience was small but he wondered whether the difference arose from climatic, social or ethnic considerations and, if so, whether it would be relevant to the United Kingdom.

The Jamaican Government's requirements that at least 51% of the equity capital should be held locally raised the question as to whether overseas companies would be forced to sell off or reinsure their local business. That would be a pity because of the worldwide experience which would be lost to the benefit of the policyholders.

Mr J. C. S. Hymans, E.R.D., referred to the policy widely marketed several years previously in Jamaica and Trinidad which combined whole of life and decreasing term assurances and applied the present value of the next expected dividend (declared every five years) as a single premium to pay for additional temporary assurance until the next dividend was available. The rates were more than competitive and he understood they were calculated on a net rate of interest of about 5½% which made it very difficult for a new company to compete there.

After commenting on the high remuneration of the top life assurance salesmen in the West Indies, he went on to the problems of fixing the level of premium rates. These were not publicised in the West Indies as they were in the United Kingdom and each agent had his own rate book which he treated as top security. He had found several times that, after he had calculated a complete set of rates at an agreed level, individual quotations were filched from other companies indicating that his rates were no longer competitive. Life assurance in the West Indies was very dissimilar to what it was in the U.K. In addition to the secrecy over premium rates, the very competitive rates of the Canadian companies made it extremely difficult for local companies, with their much smaller resources, to compete.

In all emerging countries there was much prestige attached to owning a life assurance company (some proprietary companies were called 'mutual' companies) and a strange belief that it would be very profitable right from the outset. Accordingly, expensive Press parties were frequently held and they were widely attended, particularly by competitors.

The number of people who could be regarded as potential customers in the Islands was currently a much smaller proportion of the total population than in the United Kingdom. For example, the percentages of the total population which were represented by employed males between the ages of 20 and 65 were approximately 19% in Trinidad, 16% in Barbados, and 18% in Jamaica, while it was about 25% in the United Kingdom. Applying an average of around 18% to the total populations quoted in the paper, the results were less than 200,000 in Trinidad and 15,000 in St. Lucia. There was thus intense competition in a relatively small field. On the other hand, if the islands prospered to such an extent that in the future there would be work for all, there was a proportionately much greater potential of further policyholders. In Trinidad, Barbados and Jamaica, between 50 and 60% of the total population were under the age of 20; the corresponding figure in the United Kingdom was 30%.

The flavour of the approach to assurance that could be found in the Islands was provided by the story of a company in one of the smaller islands. The person running it had approached him to do a valuation. He had become interested in general insurance when he was in Jamaica and, on his return from Europe, when he had set up his company, he did life business as well. His premium rates had been obtained by, as he had said, 'crystallising on age 24'. That meant that he had chosen the level of rates by comparison with other companies' rates outside his own island for the range from whole life rates to 10 year endowment assurance; he had then taken some other companies' whole life rates and had mixed everything up along with the whole life rates and so was using some very interesting rates. Each year he had recorded 40% of the premium income as his life fund reserves. It would be surprising if he was still in business. He was probably the exception because most companies in the West Indies had actuarial advice and worked on a very competitive basis which was as sophisticated as the level of ability of the sales staff would allow.

Mr L. J. Martin pointed out that the new local companies emerging in the West Indies were, of course, most keen for business and profit, and actuaries had to ensure that not only were they correct in their technical work but also that they were thoroughly aware of the business repercussions and possible clashes which could result from their actions and advice in those closely-knit communities. The problem was not so much the troubles of just one new life office but the combined problems of many, all trying to emerge at the same time, all selling business within a small population, and all seeking to attract to their employ the relatively few trained men available. Each office was also trying to compete with the standards of overseas or long-established local offices who, until very recently, had lower expense ratios and better and wider fields of investment.

He took a hypothetical example of a group of businessmen who clubbed together to raise sufficient capital to start a new life office. Since there were very few insurance brokers operating in the region, they would need their own salesmen who had already been trained in life assurance methods. They would normally have to be attracted from the offices of their competitors and be offered, possibly, slightly higher commissions than normal and, perhaps, the promise of a car and some prestige and status. The next stage would be to appoint an actuary who would probably produce the normal pattern of premium rates coupled with promises or expectations of fairly harmless bonuses. The company would then begin to operate. There would be much excitement and a fair amount of business would be procured. Soon, because everybody else was doing it, a few health schemes would be written and one or two deposit administration contracts would be sold on what seemed to be fairly reasonable and apparently harmless terms. Again, all would seem well, but in a few years time another office might be started by yet another group who would have seen how well their friends were doing. The second office might well attract away some of the best agents from the first office and, partly because of that, policies might be quickly lapsed—which, as the authors had indicated, meant a real cash loss to the first office. Meanwhile, the deposit administration contracts, which had produced relatively large funds as compared with the normal ordinary life branch account, might be terminated because interest rates had risen and the new office could afford the higher rates of interest more than the first office. In those circumstances, assets might be withdrawn when prices were markedly depressed and, since all the life funds had common investments, a serious strain might arise. One could be quite close to having the unusual and sad situation of a bankrupt life fund. Meanwhile, the second office who had put the first office in its parlous state, were themselves then in an unhealthy position.

Things did not usually happen quite as dramatically as that in practice but he used his hypothetical example to emphasize certain points. Since the few skilled agents available were much in demand, they were able to dictate to some extent commissions and terms of employment, and they were able to exert considerable pressure on the management of the new offices. Such commissions could be ill-afforded and that, coupled with heavy lapses, was positively dangerous to a new life office. There appeared to be much over-selling and a tendency for agents to poach one another's business, which was, of course, harmful to everybody except the agents themselves. He felt that actuaries should try to move the offices away from providing large commissions in the early years of the contracts and re-arrange the commission terms so as to encourage agents to keep business on the books.

Within a life office there might be several accounts with common investments for different types of business, so that the favourable or unfavourable working of any one of them might have substantial repercussions on the soundness and the bonus prospects of the ordinary branch life account. Deposit administration funds might easily form an embarrassingly large proportion of the total invested assets of a new life office as the growth of such schemes and the resulting investment dangers were frequently not appreciated.

The size of the life assurance market was strictly limited and, unless actuaries were fairly strong and forthright in their advice, it was quite possible that there might be some unfortunate financial incidents. It was probably easier to raise the necessary deposit to start an office than to find and to keep the necessary staff. The shortage of skilled management, especially of experienced and able men who were capable of positively acting as departmental heads, might well hamper future development. Because of that, he thought it was premature to encourage equity-linked business. Not only was there a lack of suitable local investments, but a lack of internal staff capable of administering such business and a lack of agents able to understand fully and explain such contracts to the prospective policyholders.

He agreed and sympathised with the authors' difficulties in deciding upon the strength or otherwise of valuation bases to be adopted. Valuation data were frequently unreliable and there might be pressures to present a result which was at least 'comfortable' to the public, particularly, perhaps, by the use of a rather too generous Zillmer adjustment. The early valuations of some of the funds might be rather more art than science and he thought they must tread very warily.

Mr K. M. McKelvey noted that, broadly, there were two ways of controlling insurance; one was the way British life assurance was controlled and that was to put very little into the statute and to leave it to the actuarial profession; and the other way was to put it all into statute as the Americans and Canadians had done. He believed that Trinidad's Insurance Act, 1966, gave the Supervisor power to lay down the actuarial valuation bases and he hoped that he would be a little less unrealistic than the Canadian legislation appeared to a British actuary. At a time when money could be invested in Trinidad to earn 7, 7½ or 8%, it seemed absurd to be told to value annuities at 4%.

He asked the authors to say what impact they thought might be felt by the life assurance industry from the growth of national insurance schemes in the various countries in the Caribbean.

Mr A. D. Shedden (a visitor) compared the mortality statistics given by the authors with his company's experience which was confined to the years 1963–68 and covered medically-examined lives under ordinary business policies mostly written in Trinidad and Jamaica. Since durations 0 to 4 had contained only 33 deaths, it had not been possible to derive death rates but the overall experience was under 90% of A 1949–52 rates. The data for durations 5 and over contained 258 deaths and the experience could be summarised as approximately 92½% of A 1942–52 ultimate rates overall. A very crude graduation had produced the following rates of mortality at the ages quoted by the authors, excluding age 30 because of the very few deaths at that age:

Age	q_x
40	·0019
50	·0049
60	·0174
70	·0421

On the assumption that the exposure was large enough for the figures to be significant, the mortality seemed to be close to A 1949–52 ultimate with a slight margin. However, it was possible that, with the smallness of data, the fit was fortuitous. The experience was based on numbers of lives and, had sums assured been the basis, the rates might have been lighter. The overall experience for Jamaican lives appeared to be a little heavier than for Trinidadian lives but he doubted whether the results were statistically significant. Further, he accepted that the overall level of mortality of any one company was very much dependent on underwriting standards and so few conclusions could be drawn from one company's experience. However, for any company, it was most likely that mortality would depend very much on size of policy.

Mr T. H. M. Oppé pointed out that the authors had provided not only an excellent summary of the main features of life assurance in the former British West Indies but, in describing at some length the development of insurance legislation, had touched upon practical questions relating to insurance supervision which were relevant in a much wider field. When the rush of former British colonies to gain independence began in the 1950s, it seemed to him that there were two status symbols most eagerly sought by the newly emerging countries: a national airline and an insurance act. The countries first off the mark were in Africa and, indeed, new insurance ordinances had been introduced based on the United Kingdom pattern of freedom with publicity even before independence was gained. Developing countries, however, soon had doubts as to whether that type of legislation went far enough because there were no provisions requiring local investments (and developing countries needed capital) and there was not enough protection against companies that did not follow sound insurance principles. Consequently, the second wave of insurance acts, in which the West Indian islands were involved, tended to include provisions for a proportion of the funds representing local liabilities to be invested locally and to widen the extent of supervision imposed upon companies and the agents who sold the business. As previous speakers had remarked, the principle of local investment of the savings of policyholders which life assurance represented could be both in the national interest and in the interest of the policyholders provided suitable investment opportunities existed, and that had been accepted by the British life offices. On the other hand, a too onerous insurance supervision was not necessarily in the interests of policyholders because it increased costs of administration and could hinder the efficient conduct of the business. Also, it was doubtful whether the smaller islands could exercise efficiently the powers they had been given under the acts.

A third phase in the evolution of legislation in developing countries was the requirement that companies should be incorporated locally with the majority of the share capital owned locally. That measure applied to companies generally, not just assurance companies, and was designed to provide employment and to keep profits at home. Whilst that trend seemed inevitable, he felt it might jeopardise the development of a sound and expanding life assurance market, and the important contribution that could make to the building up of a capital market, if local insurance institutions fragmented into a number of small local companies.

In connexion with the Trinidad Insurance Act and of the technical matters both in the field of insurance supervision and taxation which had been discussed in the Life Assurance Companies Association, he paid tribute to Mr de Souza and his colleagues in Trinidad for setting the very excellent example of co-operation between the respective local interests, namely, West Indian, North American and United Kingdom companies and outside organisations. The interests, as was apparent from the paper, were different in many respects and yet it had nearly always been possible to achieve a common solution.

Mr J. F. Broadway (a visitor) said that he had for a number of years presided at joint meetings of British and Canadian life companies and British non-life companies who had been operating in the Caribbean areas. It seemed to him that the problems confronting general insurers stemmed from the same sources as those confronting life insurers, namely, the multiplicity of islands, the consequent multiplicity of countries, the multiplicity of ministers, the multiplicity of superintendents, and the multiplicity of insurance acts. They all imposed requirements of various kinds on both local and foreign insurance companies which sought to operate in the territories concerned. However, there was a difference of opinion between life and non-life companies on the question of guaranteed deposits. Whereas life companies did not mind putting up guaranteed deposits, general insurers were not keen since the deposits were usually fixed at an arbitrary figure which bore no relation to the size of the business transacted. Both life and general companies recognised the desirability of investing in the territories in which they operated provided suitable investments were available.

He thought that much of the legislation introduced in the emerging territories was self-defeating. He had read speeches by finance ministers in two former British West Indian territories who had said that it was their intention to introduce insurance legislation requiring deposits from companies operating there, the idea being that, if there were 10 foreign companies operating in the island, there would be 10 deposits of $50,000 and one would then have $500,000 to invest. The reverse happened because the amount of business in those very small islands was such that there was a wholesale withdrawal of the companies concerned. Some of the very small islands had neither the skilled insurance personnel to operate local companies nor the skilled civil servants required to operate the very complicated legislation introduced. He thought it was unrealistic to expect an insurance company to lock up money for which it was trustee and which might have to be transferred quickly between areas in small countries with small investment markets. Even the international reassurance market was becoming increasingly reluctant to support the system and he felt the territories and smaller islands would have to devise some scheme of co-operation and collaboration. Unless and until some community of interest on the part of the smaller countries could be devised, he did not see great scope for the development of insurance in those territories either through the establishment of local companies or for the continued operation of foreign companies.

Mr C. M. Stewart recalled that he had written a paper on the population position of the British Caribbean for the Students' Society (*The Population of the British Caribbean. J.S.S.* **15**, 297). At the time, with the emergence of independence of what were then the British West Indies, the expectation was that they would form a Federation but that had come to naught because of the great desire for independence of the different islands and mainland territories. What had struck him most about the paper, as someone with an interest in demography, were the very low crude death rates in Table 1. They showed a very considerable reduction from past years which clearly signified an improvement in the mortality in the area. He felt that, having progressed to such low death rates, they should be encouraged to get the death rates up again by reducing birth rates so that the age distribution of the population became one in which the crude death rate would rise again to 10 or 12 per thousand or even more which, in his view, would reflect a healthier population position.

The authors stated that the 'freedom with publicity' system of supervision which had been effective in the United Kingdom had failed to protect the insuring public in the West Indies. He thought it was fair to extend that a little and to point out that the effectiveness of the 'freedom with publicity' approach in the United Kingdom had also protected policyholders of British Companies in the West Indies because supervision in the United Kingdom was not a local solvency test but applied equally to policyholders of British companies all over the world, including the West Indies. Much depended on what was meant by 'publicity', the extent of it, and what was done with the information when it was made public. For non-life insurance companies, he thought it was important to remember that the system had changed in the United Kingdom very recently, with the advent of the Companies Act, 1967 and the new forms and statements which had to be prepared under the 1968 Insurance Regulations. The first of the new forms and statements—the financial ones—had become available in 1970. The first of the new statistical statements—the claim frequency analysis and claim settlement analysis—would not be available until companies submitted their returns in 1971 and, as much of the information was in the form of run-off statements, their usefulness would not be apparent for a few years. It was therefore premature to judge how effective the new approach to non-life insurance supervision in the United Kingdom was likely to be in future.

Mr F. B. Corby, in closing the discussion, repeated the thought that the managers and actuaries of life offices operating in the former British West Indies faced problems which were similar to those found in developing countries elsewhere. However, the actuary in the West Indies also had to cope with many, varied and unusual situations and it might well be that British actuaries would be concerned in future with the growth of life and non-life companies in the developing countries not as hitherto in connexion with the extension overseas of the insurance activities of U.K. based companies, but rather in an advisory capacity as those countries sought to establish their own insurance companies as part of the process of acquiring economic independence. He acknowledged, however, that his view was at variance with that of the authors.

A powerful factor in the development of life assurance business in the West Indies had been the interest of the North American companies combined with the relative lack of interest on the part of British life offices. It was interesting to compare that with the position in other countries where British influence had been paramount and it was perhaps surprising that there had been no mention of it in the discussion. The North American emphasis was on maximum cover for minimum premium rather than on the savings element of the contract and, whilst to some the comparison of the proceeds under whole life and endowment assurances given by the authors might not be as convincing as they implied, it undoubtedly reflected the North American approach. More striking was the greater range of policies, the policy riders and settlement options which were available. It was possible that some might regard the proliferation of types of policy and benefits as indicative of the companies being unduly sales-oriented but he thought it preferable to regard the greater range of benefits as being the result of the North American ability to recognize a market and to exploit it in the best sense of the word. In contrast, British offices, particularly in the developing countries, had tended to introduce new types of benefit with caution, if not reluctance, and often only after the demand had been created by others.

The commissions payable and the level of persistency bonuses also reflected the North American influence. It was interesting to compare the minimum persistency ratio of 85% which was required to qualify for a persistency bonus with the lapse rates shown. For that company it seemed unlikely that persistency bonuses would be very expensive. Whilst it was reasonable to relate persistency to the experience of the first two years, agents could become 'two-year men' who would be prepared themselves to pay premiums for the balance of the first two years in order to maintain a policy in force and to keep their persistency ratio at an acceptable level. Heavy discontinuances after completion of two years' premium payments was a common feature of that kind of system. The consumer in North America was becoming increasingly conscious and critical of the front-end loading of agency contracts, which would, in due course, lead to a lengthening in term of commission payments. It would not be easy to secure the acceptance of the agency force of the consequential reduction in first- and second-year commission rates and when the change was made some bridging operation to maintain agency earnings could well be necessary.

A number of speakers had referred to the adverse effect on the local market arising from the advent of strong overseas companies and the authors had commented that the smaller local companies were not able to follow the terms which the overseas companies could grant to their agents. That difficulty was increased if, due to the absence of exchange control, policy reserves could be wholly or partially invested overseas, and if head office expenses were not properly charged but were pooled for profitability purposes. The local companies were then likely to find that, due to higher expenses and lower interest earnings, they were uncompetitive and therefore had to remunerate their agents at a higher level to sell a poorer product. Alternatively, they had to sell in a different market with a lower sum assured and therefore with higher unit costs. In either case, the local company was likely to become even more uncompetitive. The authors remarked that theoretically premium scales and/or, presumably, bonuses should be widely different among the Caribbean Islands. If that were so, how much more difficult it was to justify using not only the same scale for all the islands, but a scale which was used elsewhere in the world.

Overseas insurers in the West Indies seemed to carry out the bulk of their administration at their head offices. That had caused considerable difficulty in developing countries elsewhere, particularly in Africa. Exchange control and the restriction on remittances for head office expenses had been strong encouragement to do work locally. Some countries had gone further and insisted on an increasing amount of local administration, the difficulty of complying with which had been increased by placing restrictions on the employment of expatriates. That stemmed from an understandable desire on the part of the developing countries to increase their economic independence but it was inevitable that the companies would feel that the countries were trying to progress too fast.

An even more important area where there might be a conflict between the interests of the relatively few policyholders and the interests of the economy as a whole was in relation to investments. Legislation which led to a significant proportion of savings generated in a community being invested locally had to be accepted provided the government concerned made suitable investments available. Requiring localisation of investments was, however, different from insisting on a local statutory fund or the establishment of a local subsidiary, with or without local shareholdings. That possibility was increasingly being found and was eroding the international life assurance company operating through branches. It was certainly so for the developing world and recent proposals in South Africa indicated that it might not be restricted to developing countries. The immediate future for international life assurance could well lie with the holding company which operated through subsidiaries in different countries, whatever the theoretical disadvantages might be. It was difficult to see how the trend towards subsidiaries could benefit the policyholder, particularly as the countries concerned could secure what local control and local asset cover they required by other means, notably suitably drafted insurance legislation. Further, it could lead to a loss to the countries concerned by way of reassurance and consequent outflow of premiums.

Mr Jarvis and Mr Martin had spoken about the provision of equity-linked policies. The idea that the development of equity-linked policies and the creation of local unit trusts might help to provide an active stock market had some aspects of putting the cart before the horse. In a narrow market, it was dangerous to create a situation where money had to be channelled into equities; it could lead to unjustified prices. If local investment was required, equity-linked policies would be possible only if there was an adequate local market.

A number of speakers had referred to the small size of many of the islands and countries and that was well illustrated by the Table 1. Mr Hymans had made the point that the population likely to take out insurance was also limited to a considerably lower proportion than that applicable in the United Kingdom. The problem was largely political but it was difficult to see how each country could develop its own insurance companies able to give satisfactory service and benefits, especially, as Mr White had said, in relation to non-life insurance. Mr Martin had clearly illustrated the dangers and difficulties faced by new companies in a relatively volatile market. At the same time, there seemed little reason for the overseas insurers to stay if it meant subsidizing their business for the doubtful benefit of policyholders and shareholders elsewhere. It was certainly difficult to see how the number of companies operating could be supported if there was to be a significant degree of localisation of administration. It must result in poorer service to policyholders and prospective policyholders and a reduction in the range of choice but that was the price of independence. In Africa, the East Africa Common Services Organisation had not prevented Kenya, Uganda and Tanzania going their own ways in regard to insurance and, indeed, setting up stronger barriers in certain respects between each other than they had between themselves and the rest of the world. He suspected that in the Caribbean area the divisive forces were stronger than the cohesive ones.

Mr McKelvey and Mr Oppé had mentioned legislation. It was hardly surprising to him that what was no longer regarded as adequate in the United Kingdom had proved unsatisfactory in the circumstances of the West Indies. In Trinidad, one of the requirements was for actuarial valuations to be made not less frequently than once in every five years and it was doubtful whether that was sufficiently often. Much could go wrong, particularly with a new company which was excessively sales oriented, in a year, let alone a quinquennium.

The authors and Mr Hymans had drawn attention to a number of particular problems which faced the actuary in the West Indies, and the authors had mentioned the compromise that the actuary might have to reach in lowering his margins to produce a competitive contract. He wondered whether the real problem was that the company was being launched with insufficient capital. Pressures on valuation bases resulting from new business strains and increasing new business expenses was a problem wherever life assurance was conducted. In the newly established company, the actuary was still concerned with solvency but even in the well established company he had to accept that business was being solicited on the basis of projections of current rates of bonuses which would require substantial yields or capital profits in the future if they were to be maintained. The authors referred to the responsibility which fell on an actuary in deciding whether a struggling company should continue or not but he felt that it was not a responsibility that an actuary could, or should, wish to avoid and, whilst there was room for differences of view, it was to accept that responsibility that the actuary was trained.

The authors stated that the financial strength of weak companies had to be built up at the expense of one or more generations of participating policyholders and he wondered what those policyholders would think if they were told that. However, a new company could grow otherwise only by raising more capital, which would not be easy, particularly in the West Indies.

The President (Mr R. S. Skerman) expressed thanks to the authors for the paper and to Mr de Souza for coming from overseas to present it in person.

The development of life assurance business in different countries had depended a great deal on local influences and, in each territory, the authorities had to decide where to draw a line between where control of the business should be governed by legislation and where it should be left to the actuaries and the managements of the insurance companies. There was no ideal solution and it was not surprising that different countries had reached different answers to it. It was clear that it was possible to protect policyholders by legislation and by regulations but such a gain was almost inevitably accompanied by a loss because, although one could ensure by legislation that there were sufficient assets available in a country to meet policyholders' claims arising in that country, if such legislation spread all over the world there would no longer be an international availability of funds to meet claims wherever they arose. A country could legislate for a higher solvency standard by imposing minimum actuarial valuation bases and by imposing regulations as to the valuation of the assets, but almost inevitably the release of profits to policyholders was held up. Again, a country could legislate for pretty well absolute security on the investment side by insisting that all the assets be invested in gilt-edged securities, but the final outcome to the policyholder was likely to be less advantageous because one was protecting him not only against loss of capital but also against an enterprising investment policy. It was a dilemma every country faced and it seemed to him important that those in the U.K. who were doing business overseas or who were concerned with overseas business should do their best to understand the problems of the legislators in those territories, and equally that the legislators should try to understand the views of overseas insurers.

Mr M. M. de Souza thanked the President for his kind remarks. When he and his co-author had set out to write the paper, they had realized that it would be difficult to produce one which would serve not only as a satisfactory record of life insurance business in the Caribbean Islands but also stimulate a discussion. In the event, it had been a great pleasure to listen to the discussion. He went on to deal with a few points.

Looked at from an actuarial point of view, the pooling of risk on a global basis was ideal for writing insurance throughout the world but, from a political point of view (which played a very important part in the emerging and developing countries), people had to understand the problems of nationalism and the feeling that the emerging countries wanted to be able to control, to direct and to guide their economic activities and to be in a position to channel the investments of the citizens of their countries in a way which they believed was in their best interests. There was a conflict between what to the actuary was the ideal position of pooling of risk and the question of having to satisfy the politicians. As the life assurance industry was one of the largest collectors of savings in any country, it, together with the banking community, came in first for detailed scrutiny on the emergence of any young nation. The actuary practising in the area had to try to understand the political situation and try to help the politician in his quest for control of the economic activities, and also to see if there could be some solution which would result in an amicable or reasonable median between the desire to control the economic activities and the need for the international pooling of the risk of insurance companies. A possible solution (which had not been developed fully yet) was the greater use of re-insurance and, in addition, the use of expert advice and technical expertise from the developed countries.

Mr McKelvey had asked whether the Government of Trinidad would be introducing more detailed bases of valuation. He said that although he could not commit the Government of Trinidad and Tobago to what he was saying, he was consulted a great deal on what they were doing and could say that the Supervisor's department did not intend to introduce a minimum basis of valuation. That section had been included in the Act to give the Supervisor the necessary powers if, in fact, it was thought that a minimum basis had to be introduced for one purpose or another. In the immediate future, the minimum basis in the Trinidad Insurance Act would not be used for valuation.

Mr McKelvey had also asked what effect national insurance would have on the development of the insurance industry in the Caribbean area as a whole. National insurance had been introduced into Jamaica about six years previously, and more recently in Barbados and Guyana, and he hoped before the end of 1971 it would be introduced in Trinidad. Those national insurance programmes provided a very small death benefit, their main areas being retirement incomes and replacement of the old workmen's compensation ordinance. National insurance had not had any effect on the insurance industry to date although, in Barbados and in Guyana, the introduction of national insurance had, in some respect, increased the amount of life insurance business being sold. He expected the same sort of development in Trinidad when national insurance was introduced.

Several Caribbean insurance companies were canvassing for business in the U.K. among West Indian migrants. His understanding was that, provided the local agents acted for and only canvassed business among the West Indians in the U.K., such local companies would not have to comply with the U.K. insurance requirements. There were very few statistics but the volume of business was small.