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The Captive Insurance Phenomenon : A Cautionary Tale ?

The state of the art in the perspective of a Risk Management Consultant from the United States

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1. Introduction

In October, 1981, in a proverbial smoke-filled room in Florida, twenty-five men, all members of the Captive Insurance Companies Association and representing corporate owners of captive insurers, gathered to discuss mutual problems and methods of exchanging risks. As captive managers they were using underwriting ideas which could be considered distinctly unorthodox, yet their combined capital and surplus was about \$275 million, with a potential net line capacity of \$3.3 million, making this group about the third largest among U.S. reinsurers. They were truly representative of the growing captive insurance company movement, which began in earnest in the 1960's.

The true significance of the startling development of captive insurance companies over the past twenty years lies in two facts of current economic life.

First, growing technological progress and increasing worldwide competition have created a continual pressure on all organizations for improvements in efficiency. This demand applies not only to internal operations but also to external costs, such as insurance. Insurance, unfortunately, in the eyes of some corporate buyers, uses many systems and procedures that may be more appropriate to earlier, less complicated days. As a result, the "frictional costs" of the industry may be too high.

The captive insurance phenomenon has resulted in part from the relentless pressure of the growing ranks of sophisticated risk managers (and the corporate financial officers to whom they report) to dissect and examine every element of cost in the insurance transaction, to see where economies can be realized. Are commissions to agents and brokers justified? What "services" are actually rendered? What about claims handling? Are the services properly qualified? Do they serve the *insureds*' interests (as compared to the insurers') and could they cost less? Are there any

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regulatory fees or taxes which could be avoided or deferred? Are loss prevention services valuable or do they merely duplicate those which already exist internally? Will access to reinsurance reduce costs? And finally, are there cost savings in changing cash-flow procedures? The international focus on needless waste of resources has been one of the impelling reasons behind the rapid growth of captive insurance companies.

The second major factor which has fed the captive movement is the instability and unpredictability of modern economic life. Exponential technological change, population growth, increasing economic interdependence and the vagaries of post World War II life (inflation, terrorism, floating currencies, nuclear threats, political turmoil) have created a new and less stable environment for organizations. Within this environment, prudent managers seek to insulate the organization against the unexpected, through larger contingency reserves. In the area of accidental loss, the up and down cycles of the insurance industry and its apparent willingness to drop lines of coverage which have proved difficult (medical malpractice in the United States is a prime example) have given little comfort to financial executives seeking reserve support. At the same time, the inability of corporations in the U.S. to take tax deductions for most internal reserves has led these same executives to look longingly at the favored tax treatment afforded insurance companies. The result : the creation of "captive" insurers.

These two economic facts of life, the demand for ever-increasing efficiency and the recognition that increasing instability requires new "reserve" techniques, have been major reasons for the development of an "industry" that now rivals the entire London market in the size of its underwritings.

2. What are "captive Insurers"?

Many definitions abound and even these are being changed as these organisms multiply, divide and mutate to respond to the changing environment and their own fortunes. The term "captive insurance company" still raises the hackles of many financial executives. Captives are, in reality, limited-purpose subsidiaries of organizations whose primary role is not to sell insurance or participate in the world insurance markets. Despite the somewhat negative connotations of the word "captive", the name has stuck, and it would be unwise now to try to change. Most observers believe that captives fit into one of the following four categories 1:

- Pure Captive: A wholly owned subsidiary of a non insurance organization established primarily to fund all or a portion of the parent's risks of accidental loss. Outside risk, generally through reinsurance, is less than 20 % of total underwritings.

¹ H. F. Kloman, "Captive Insurers: 1980," in *Papers of the Fourth International Captive Insurance Company Conference*, Risk Planning Group, Darien, Connecticut, USA, 1980. The term "senior captive" was first developed by Miles Chenault, of Midland Insurance Company, in the early 1970's.

- Senior Captive : A captive in which the funding of outside risk has increased to more than 25 % of total underwritings, but less than 75 %.
- Profit Center Captive: This is really a true insurance subsidiary whose major objective is profit from outside underwritings and whose parent-risk underwritings are less than 25 %.
- Group Captive : An insurance company owned, sponsored, or operated by two or more non insurance organizations, designed to fund only the risks of those organizations.

3. The size of the captive movement

While captive insurance companies have been with us for centuries, especially if we include in the definition risk-sharing mutuals and pools, their explosive growth can be traced to the early 1960's, particularly in the Bahamas and Bermuda. Today there are over 1,800 operating worldwide, with the following estimates for domiciles :

Bermuda	1,030 1,050
Bahamas	20 — 30
Cayman Islands	200 — 250
Netherlands Antilles	20 — 25
Panama	10 — 15
Guernsey	110 — 120
Isle of Man	15 — 20
Gibraltar	8 — 10
Cyprus	3
Hong Kong	5 — 10
New Hebrides	5 — 10
Singapore	2
United Kingdom	10 — 15
Europe	10 — 15
United States :	
Colorado	28
Tennessee	3
Vermont	1
Arizona (Credit Life)	175 — 200
Other States	<u>10 — 15</u>
TOTAL	1 800 (

TOTAL

over 1,800 (maximum)²

² An annual listing of captives, their parents and captive management companies has appeared for the past six years in *Risk Management Reports* (1976-1981) and will be in a new *Captive Insurance Company Directory* for 1982.

These figures, compiled in October of 1981, include approximately 56 new reported captives created in 1981, plus about 200 "credit life reinsurance" companies, owned by U.S. banks and which underwrite life and disability insurance on the lives of their borrowers. Some 112 such companies were listed in the January-February issue of Risk Management Reports. The growth rate has been about 8-10% per year over the past 3-5 years. While there are no concrete figures available, a reasoned analysis of captive operations and an extrapolation of financial information on about 100 captives lead us to project that the captive insurance company "industry" probably will account for \$6-7 billion in premiums for 1981, based on \$6-7 billion in assets and about \$5 billion in capital and surplus. If the world premium flow for 1981 is about \$200 billion, as has been estimated, then this fledgling "market" has already assumed a significant size, considering how fragmented the world insurance market has become. Add to this the probable trend for the future. Conning & Company, in a 1980 study, suggested that U.S. organizations may own as many as 2,000 captives by 1984, with a premium volume of \$22 billion, more than triple their current premium estimates. Worldwide, there could be as many as 3,000 captives underwriting as much as \$45 billion, or about 15 % of the world market. The largest known captive in 1981, Ancon, a subsidiary of Exxon, already has assets of over \$630 million, and observers expect Ancon to cross the \$1 billion mark in assets by 1984. Today Ancon would rank as the second-largest U.S. reinsurer and about No. 50 on the list of overall insurers.

Thus the captive insurance company movement, by the sheer weight of number and assets, ranks as a major force for change in the world insurance marketplace. What changes the captive movement will foster can best be understood by reviewing how captives now operate, the advantages and disadvantages of forming such entities and some of the turmoil around the problem of taxes in the United States.

4. Methods of operation

A captive insurer may deal directly with its owners, or indirectly, through a fronting intermediary, or both ways. Either way captives tend to follow prudent and conservative insurance practices in operating ratios, such as net retention to surplus, and net underwriting to surplus.

4.1. The captive as direct insurer

Captive companies provide coverage on either a primary or an excess basis. Primary coverages include first-dollar insurance of low severity areas such as marine cargo and auto physical damage — within a reasonable retention. Retentions for primary captives are commonly in the range of \$50,000-\$100,000 per occurrence. Insurance for losses in excess of these amounts either can be reinsured by the captive, or be purchased directly by the parent. Of course, some smaller captives retain smaller amounts of each loss, and some large ones retain up to \$1 million per occurrence. If the captive coverage only begins after a substantial deductible to the parent or subsidiary, the primary coverage by the captive resembles excess insurance, but is in reality a corporate retention of higher levels of risk than individual subsidiaries or units can retain. Direct insurance can be placed with a captive for property insurances, and liability insurances — as long as local restrictions do not prevent the export of premiums by the parent to the captive.

The most commonly insured forms of direct insurance into captives are, in order of importance :

- product liability;
- professional liability, such as medical malpractice ;
- foreign and domestic property;
- general liability;
- marine liability;
- marine cargo.

Direct insurance to an offshore captive is usually subject to excise taxes, at least in the U.S. (where the tax is 4%), but otherwise escapes all fees, commissions, and other costs associated with the perceived inefficiencies of the insurance distribution system which the owner of the captive may be seeking to avoid.

When group or association members pay premiums directly into a captive, there is generally some pooling of risk among all participants. The rating mechanism can be either fixed, with all members sharing in the overall results of the pool, or adjustable in such a way that members with better loss experience are rewarded more than those with poor loss experience. Both systems are identical to the pooling which commercial insurance is supposed to provide, but escape much of the time and cost inefficiencies associated with insurance pooling.

4.2. The captive as reinsurer

Captives often operate as reinsurers. A local insurer (called the "primary insurer") issues a policy to the parent (or its local operation), and in turn cedes in the form of reinsurance all or part of the premium, and risk, to the captive. The reinsurance method of funnelling premiums into captives is used when :

- local insurance regulations require use of local insurers, or prohibit use of foreign, unlicensed insurers;
- the parent needs certificates, services, or claims handling facilities from a local insurer;
- the number and dispersion of the owner's local offices or subsidiaries make it more practical to have one centralized insurer taking care of all premium collection and remittances.

The reinsurance form is often used by group or association captives, even when not strictly necessary, to maintain a "neutral" primary insurer between the members and the captive insurance company, chiefly to promote equitability of rating and loss adjustments.

The most common forms of reinsurance into captives are, in order of importance :

- workers' compensation ;

- auto liability;

— international property.

Reinsurance is not without its costs, however. The primary insurer, in exchange for its "name and fame" will charge so-called fronting fees which vary from 5% to 30%. Fronting percentages include some or all of these elements :

- local premium taxes;
- local commissions to agents and brokers ;
- claims handling expenses;
- administration and documentation expenses;
- profit to the primary insurer;
- charges for contributions to insurance funds, residual markets, and guarantee funds ;

- excise tax on reinsurance (1 % in U.S.).

Often, cession of reinsurance premiums by the primary insurer to the captive leaves the primary carrier holding liability loss reserves which are only reimbursed by the captive, on a bordereau basis, when claims are settled. In many cases the primary carrier cannot take credit for the reinsurance provided by the captive, and so requires an irrevocable letter of credit for the amount of the loss reserves as an asset to offset liabilities in the form of these reserves on its balance sheet. Primary carriers are also known to require "good faith" letters of credit in addition, sometimes up to the policy limit, in the case of an association captive with many smaller members.

Reinsurance to a captive is often used in conjunction with negotiation of an overall package of risk retention, excess insurance, and services with a single primary insurer. For example, the product liability of a group of machinery manufacturers may consist of :

- \$25,000 local retention by the individual member;
- \$100,000 retention by the captive (of a \$125,000 total retention before the insurer pays anything);
- \$875,000 risk assumed by the primary insurer.

The result of this structure would be a single \$1 million policy, whose pricing might look like this :

- original gross premium : \$500,000 ;
- retained by primary insurer for fronting services : \$100,000 ;
- insurance charge by primary insurer for \$875,000 excess of \$125,000 : \$125,000 ;
- net premium ceded to reinsurance captive : \$275,000.

In this simple example, the captive now has to pay all its expenses and all claims up to \$100,000 (excess of \$25,000) out of the remaining \$275,000. If the risk analysis showed an extremely low probability of losses exceeding \$25,000, this might be a good arrangement. Otherwise, the costs and charges associated with reinsurance are much higher than for direct insurance to a captive.

4.3. Combinations and permutations

Most captives operate both direct and reinsurance programs for their owners. For example, a captive owned by a multinational corporation might be operated as a direct insurer for U.S. property insurance (and other countries which permit nonadmitted insurance) and as a reinsurer for handling exposures located in countries that prohibit nonadmitted insurance. Since some countries only prohibit nonadmitted insurance for coverages available from locally licensed companies, the captive may reinsure the local fronting company for these coverages, and provide direct insurance for "difference in conditions" coverages not available in the local market.

4.4. Non-owned captive (NOC)

Sometimes referred to as "rent-a-captive". An existing captive, usually offshore, offers to insure the risks of an unrelated company, or a group/association, following one of the methods already described. An account is set up, or a special class of stock is created, both of which have as an effect the segregation of the new client's captive business from that of the existing captive business. This also means that the results of the new client, if unfavorable, will have to be made up prospectively; the NOC service never intends to take a risk position, or pay any of the losses of the client business. The advantages of such a scheme are :

- the new group does not have to capitalize its own captive ;
- the new group does not have to go through all the bother of setting up a captive;
- the NOC obtains a good piece of unrelated business, which is good for its taxdefense position (see p. 85);
- the NOC receives fees for the service, and usually some of the investment income as well.

5. Reasons for establishing a captive

Much has been written about why captives are formed. Several surveys have been made ³ and many opinions publicly expressed. The reasons most commonly given, or which emerge, are financial and non-financial. The financial reasons are :

- reduced cost of insurance;
- access to reinsurers (another aspect of reduced cost);
- cash-flow advantages;
- investment income ;
- tax advantages.

³ Notably : Patrick J. Davey, "Managing Risks Through Captive Insurance Companies," The Conference Board's 1980 Research Report No. 768; RIMS (American Risk and Insurance Management Society) in 1980; Conning & Company, *The Changing Property and Casualty Commercial Lines Markets*, Hartford, Connecticut, December, 1980.

The non financial reasons are :

- bargaining tool;
- risk management tool;
- broader coverage possible;
- profit center potential. (This, of course, is also financial but the initial reason in the explanation below is shown to be non financial.)

5.1. Reduced cost of insurance

The captive, especially used as direct insurer, permits elimination of unnecessary expense loaded into primary insurance premiums. Commissions, premium tax, and insurance company profit and overhead are the main savings, and these can amount to 20-25 %. Unnecessary services provided by insurers can also be eliminated, notably in the area of engineering and loss prevention, where the insured's own staff may be doing a better job than the generalists and itinerant inspectors provided by insurance companies. Typically, large corporations provide their own loss prevention services for the benefit of the risk management department, and "It is conceivable that these services are actually duplicating those performed by the insurance company, who charges for such services in the cost of its (insurance) product."⁴

The expense factor saving alone is highlighted between captives and commercial insurers. Captives, even the largest, rarely have an expense ratio higher than 10 % of net premiums; that of commercial insurance commonly runs above 30 %. A recent analysis of 28 physician and hospital-sponsored medical malpractice insurers in the U.S., which account for 42.5 % of the market, shows an average expense ratio of 11 %.

In many cases captives have been formed because their owners believed that their expected losses would be less than those assumed by insurers in calculating premium rates. Insureds have traditionally believed the cost of their risks to be less than the cost of insurance (indeed this must be the case in order for the insurance industry to make any profit at all). The captive offers an opportunity to take advantage of this perceived difference of opinion, recapture some of what is considered excess underwriting profit, and at the same time take on risks for which insurance rating mechanisms do not offer sufficient credit.

This point, credit for deductibles, is the principal impetus for forming international property insurance captives. In many countries, credits for higher deductibles are not available under local tariffs, and in most countries, credits are kept unrealistically low by the insurance distribution system which is bent on taking in maximum premiums from all insureds. Examples of deductible credits of 7-10 % for a \$500,000 deductible which, besides being extremely low, had to be negotiated with the local tariff committee, are common. In Japan, for example, there is no deductible credit at all, under the tariff.

⁴ Andrew Barile, Managing Captive Insurance Companies (Hartsdale, New York, 1972), p. 9.

The use of a captive to handle funding for these deductibles can enable the insured to bypass restrictive tariff regulations and implement deductibles with more realistic credits. The following example illustrates how this works for several cases :

An insured owns a captive in Bermuda, and (for this example) three factories, one in Germany, one in France, and one in Brazil.

Germany: The plant's property value of \$10 million makes it the object of rate competition among insurers. As a result, insurers are unwilling to offer more than 10% credit for the desired deductible of \$100,000 per loss. The German regulations do not prohibit non admitted insurance, so the German plant buys all its property insurance directly from the captive. The captive retains the first \$100,000 and reinsures losses above this level to worldwide reinsurance markets. The resulting overall credit, when reinsurance commission, cash flow, and other factors are taken into account, is a credit of about 35% — even from the unrealistically low German fire rates. On top of that, many such captive participants in Germany "forget" to pay local fire brigade and other premium taxes.

France: The same \$10 million plant in France cannot be insured directly with the captive because of French restrictions against non admitted insurance. Also it cannot be simply reinsured by a fronting into the captive, because the French have restrictions against unauthorized reinsurance, too. So an international insurer such as AFIA issues a local French policy to the plant, reinsures with its international reinsurance affiliate (an authorized French reinsurer), which in turn retrocedes to the captive. The local policy contains a low or none deductible, but the captive receives about 25 % of the original gross French premium for its \$100,000 retention. Typically, the fronting company keeps up to 10 % of the risk plus 5 % for fronting fees, and the reinsurance transactions cost something, too. On top of that, the international insurer may want to withhold 40 % of the premium for French premium reserves for one year, although for larger programs this requirement can be waived.

Brazil: The plant in Brazil is a problem, because not only is fire insurance obligatory, but it and all reinsurance must be placed locally. Most worldwide property programs involving captives simply exclude Brazil entirely. The captive, however, is able to participate in what are euphemistically called "non-Brazilian perils" and receive premium cession from a worldwide insurer for \$100,000 deductible on these perils — insurance placed and purchased outside Brazil. Although technically against the spirit of Brazilian insurance regulations, it is acceptable practice because : a) the Brazilian subsidiary is not debited directly for the insurance; and b) "all-risk" coverage, the way it is written in most worldwide programs, is not available in Brazil anyway.

Worldwide insurers of such multi-country programs have been known to make arrangements to credit Brazilian premiums to the captive from the central reinsurance facility, even though such premiums never actually leave Brazil. Such arrangements are only made where the Brazilian piece is small by comparison with worldwide business. The effect of all three of these cases is the same — the captive is the recipient of funds for the desired \$100,000 deductible which would not have been available in the absence of the captive. The captive has contributed to the financial efficiency of the insurance distribution system.

The other reasons listed below — access to reinsurance, cash flow, investment income, and tax advantage, all contribute to reducing the cost of the insurance program, but not as directly as the savings in expenses.

5.2. Access to reinsurance

A logical alternative to establishing a captive would be to find insurers willing to sell excess insurance above high retentions equal to what would be retained in a captive. Unlike the property insurance example above, casualty insurance buying credits for high retentions, especially in coverages where frequency of loss is prevalent, are available. But there are opportunities for striking an even better bargain through accepting the whole risk in the captive, and reinsuring the excess. This seems contrary to all logic, yet it is sometimes available. Edward Lalley, President of Ideal Mutual Insurance Company, has stated :

"It is difficult to rationalize what there is about a reinsurance arrangement that permits me to take the 600 National Dairy properties into the reinsurance market (through Ideal Mutual as the insurer), reinsure the risks above \$100,000, and pay less reinsurance premium than I would pay if I took the self-same risk into virtually the same market on an insured program with \$100,000 deductible... Under either arrangement the conventional insurance market pays the same losses; consequently, if there is an advantage to the reinsured arrangement, it is an artificial advantage and will not continue for long." ⁵

The reinsurance markets, in addition to offering potentially lower direct costs, are usually a different set of underwriters, different insurers, with different viewpoints and underwriting philosophies, than the primary insurers. They may be able to develop innovations for captives, such as aggregate stop-loss insurance and sliding-scale profit sharing which are generally unavailable from primary insurers. And, of great importance, is the custom of reinsurance commissions.

The net cost of reinsurance is a function of ceding commissions and profit-sharing (or contingent) commissions, all of which are open to negotiation. Use of these commission is common practice in professional reinsurance, although some captives are transacting reinsurance net of all commissions. Ceding commissions, actually withheld by the captive at the time of payment of the reinsurance, range from about 5% to about 25% and represent risk-free income to the captive. This income, in turn, can have an important effect on some of the key ratios by which a captive is judged. Suppose, for instance, that a captive had been receiving direct annual premiums from the parent of \$1 million and that the parent had been buying excess insurance in the conventional market for \$500,000 per year. If the parent pays \$1,500,000 coding commission, the corporate family has saved \$100,000 (the amount of the reinsurance com-

⁵ Edward P. Lalley, *Captive Insurance Companies*, New York, American Management Association, 1967, p. 10.

mission earned by the captive) and the captive has \$100,000 of non-U.S. source income. The premium-capital ratio of the captive this year is no different from what it would have been had the parent purchased the \$500,000 of excess insurance in the conventional market but next year it has \$100,000 additional surplus on which to write additional business. Captives have far fewer expenses, and theoretically, do not deserve the same ceding commissions as paid to conventional insurers that buy reinsurance. As long, however, as the reinsurance mechanism includes the ceding commission in normal computation, this advantage will remain.

5.3. Cash-flow advantages

Premiums are usually paid to primary insurers annually, and in advance. As is the case whenever retention of risk is used, a single-owner captive enables the owner to retain for its own use the funds which would ordinarily have been paid out as insurance premiums, until such time as those funds are actually needed to pay losses and expenses. In addition, dealing with reinsurers of the captive usually involves paying them quarterly in arrears, compared to the advance payments required by primary insurers. Thus, a captive may retain funds longer than would be possible with the purchase of direct excess insurance. With the higher interest rates of the past 3-4 years, this is not an insignificant advantage.

The cash-flow advantages just mentioned contribute to lowering the ultimate cost of insurance. The most important cash-flow advantage, however, is the reserve advantage. A firm that uses an *unfunded* retention program to handle its loss exposures may experience serious cash-flow problems if losses fluctuate widely from year to year. The firm might have to borrow money, sell assets, or forego planned investments in order to generate the cash to pay losses as they occur. As a *funded* retention program, the captive permits spreading of the effect of retained losses over time, and thus avoid the cash-flow problems that might be encountered with straight non-insured retention. Another cash-flow reason often cited is the unpredictability of the insurance cycles themselves — when rates suddenly increase and unforeseen restriction of coverage develop. The reserve potential of a captive can help relieve some of the short-term effects of sudden surprises.

5.4. Investment income

Captives hold premiums while waiting for losses to occur and, when they do, hold loss reserves until payment must be made. With the captive holding assets for months or years while some claims are settled, the compounding of incremental investment income could become important. Further, since captives are usually domiciled in taxfree jurisdictions with few or no restrictions upon investments, they are able to invest in higher-yielding international securities, and enjoy the advantage of deferred taxation on this income. This advantage is the most important one for casualty programs in which primary insurers ordinarily would hold loss reserves without any investment earnings credit going to the insured. The compounding effect of this investment income will not only cover all the operating expenses of the captive, but also produce important income to add to the captive's catastrophe reserves. Serious observers of the American insurance marketplace recognize the importance of investment income in many of the fundamental debates taking place over ratemaking, regulations, and marketing techniques. For instance, traditional insurers have reacted to the loss of casualty business to captives by offering various cash-flow plans of their own, with names such as "paid-loss retro", "cash-flow retro", or "banking plan". These plans provide many of the cash-flow advantages of a captive, as far as loss reserves are concerned. The only difference is that the insured does not invest separate funds, and therefore the benefit of the cash-flow advantage goes to the general profit of the insured, and does not show up specifically in the risk management account.

This last point is an important one, and serves to highlight the different philosophical points of view concerning captives. The earlier point of view was that a captive was useful to segregate self-insurance funds and permit investment income to compound for the benefit of the risk management effort. In other words, additional reserve funds provided by investment income could be used to reduce internal cost allocations even further, to increase retentions above statistically reliable levels, and finally, to permit the captive to grow to a respectable size where it could share risks with others — all for the advancement of the specific risk management goals of optimum risk financing. In more recent times, economic theorists have grown sceptical of this argument and insist that the captive is seldom able to earn a higher yield on invested assets than the yield the parent could earn by using the assets in the parent's regular business, the implication being that any profits realized from the rationalization of risk financing should go to the owner's overall profitability, and not be segregated for the benefit of one department.

5.5. The tax factors

The tax factors were the earliest reasons captives were so popular. It seemed ideal to be able to deduct premiums paid to a captive as a necessary business expense, thereby reducing profits taxes onshores, then build up tax-free underwriting and investment income offshore. In some cases, U.S. parents were able to transform U.S. income into foreign tax credits (see next section). Deductibility of premiums paid to a captive make the captive alternative superior to non-insurance of high deductibles, even when losses will equal premiums, because of the timing and cash-flow aspects of the tax factors. Of course, tax factors can sometimes predominate in captive discussions and strategic planning. When this happens, the original business purpose of the captive — increasing financial efficiency for risk financing and providing a reserve for instability and unpredictability — becomes obscured. Captives formed purely for the sake of exploiting a tax advantage are not uncommon, but they are in a minority.

The nonfinancial reasons for forming a captive can be explained more rapidly than the financial ones. They are :

5.6. Bargaining tool

Once a captive has been established, and even before it is activated, savings in insurance costs can often be realized by using the captive as a bargaining tool in negotiations with primary insurers for the owner's insurance program. For example, the threat of shifting some or all coverages to the captive from the commercial market is usually enough to make underwriters realize that the insured is willing to take his own risks and self-insure them if market rates do not correspond to projected results. In several instances the formation of a group captive by some of the firms in an industry has led commercial insurers to make coverage available on more reasonable terms to other firms in that same industry. For example, in 1979, ALAS (Attorneys' Liability Assurance Society) was formed to insure lawyers' professional liability. By the end of 1981, commercial insurers had reacted with lower rates to the point where ALAS' programs are more costly than commercial insurance. Similarly, the existence of OIL (Oil Insurance Limited) and AEGIS (an association captive for U.S. private electric companies) has enabled nonparticipants in these captives to obtain insurance from commercial insurers at lower rates than what might otherwise have been available.

5.7. Risk management tool

The captive serves most single-owner parents as an allocation account, a pooling mechanism, and a fund from which to finance risk management purposes. The allocation account through a captive is an efficient method for financing the difference between high parent retentions and lower plant or unit retentions. For instance, if the corporate retention is \$100,000 per risk but the individual plant retention is \$10,000, the insurance department collects more in charges to plants than it pays to its insurers; the balance held in a captive is considered a more efficient method of allocation and pooling than working the same systems through an internal account, subject to questions from comptrollers and challenges from auditors.

Furthermore, the captive provides a fund from which to reward some locations or members for good experience or good efforts at risk reduction, even where conventional rating mechanisms do not justify such rewards. For instance, a sprinkler system payback can be reduced from 7 years to 5 years by application of higher early-year credits from the captive to the unit, considering the financial consequences of the installation.

5.8. Broader coverage

Some insurance programs suffer from continual argument with underwriters as to what is covered and what is not, and some traditional exclusions are impossible to eliminate from normal insurance programs. The captive provides an opportunity to broaden coverage to as much as the owner wishes, limited only by the willingness of reinsurers to follow this broadening. Many product liability captives, despairing of finding reinsurance, have gone ahead and broadened their coverage anyway, accepting the ultimate risk of catastrophic loss which could put them out of business. One such captive is NML (Nuclear Mutual Limited), providing property insurance for U.S. nuclear power plants. NML had reserves of about \$100 million at the end of 1981, but coverage is available for up to \$375 million any one loss. A standby credit arrangement for some of the difference is available, and limited excess reinsurance is available above that, but all members realize that a call or assessment may be made on each one of them in case of a catastrophic loss to one of the others. NML's coverage combines several lines and perils normally available to nuclear risks only on a piecemeal basis — it is an example of truly broader coverage.

5.9. Profit center potential

Each captive has the potential of developing into an independent insurance company, insuring nonparent risks, participating in reinsurance pools, underwriting new lines of business outside the parent's family, and thereby making additional insurance profits which would otherwise not have been even imagined in the restricted selfinsurance mode of captive management. These profits can no longer simply be additional benefits for the risk management account, but are business profits similar to those of other lines the parent is engaged in. Such a development is attractive to risk management directors who yearn to "move up" in the organization, and to exercise some of their enlarged insurance skills on others than their captive audience. It is attractive to treasurers who, hampered by local financing and taxation restrictions in their home countries, view the captive as a flexible investment and project financing vehicle. It is also of great interest to the providers of insurance brokerage services, reinsurance, and offshore management, who view the development of the captive into a profit center as a way of making their own profits from the insurance venture.

6. Reasons for not establishing a captive

The reasons for not establishing a captive are also financial and nonfinancial. The main financial ones are :

- costs and hidden expenses;
- capital commitment;
- risk of adverse results.

The main nonfinancial ones are :

- " innocent capacity " problem ;
- operational, referred to here as "the cop-out".

6.1. Costs and expenses

The formation and operation of a captive represents a sizeable undertaking for any parent. Preliminary studies cost from \$5,000 to \$100,000, depending on their complexity. Operating expenses for Bermuda and the Cayman Islands, where professional managers handle many captives more cost-efficiently than a single-captive office, start at \$25,000 and can reach to \$100,000 for worldwide multi-line captives. Hidden expenses consist of legal and tax expert fees, additional travel and communication expenses associated with the captive, which can reach \$20,000 or more annually. The indirect costs of onshore time and trouble required from management cannot be overlooked; there is a strong possibility that additional staff will be necessary onshore to look after the affairs of the captive for the parent.

6.2. Capital commitment

In the regulated offshore domiciles, minimum capitalization to start is \$120,000 for a property-casualty captive. The amount of capital above this minimum is a function of two variables: the premium volume and the variability of potential losses. Premium volume is not supposed to surpass 5 times net worth in Bermuda and the Cayman Islands, thus \$1 million of premium the first year would require minimum capitalization of \$200,000, and probably more to be on the safe side. Variability of results is more important to capital than premium volume. If results are highly predictable, or the reinsurance program is structured so that the captive will in no case suffer losses of more than a definite amount, then minimum capitalization is all that is needed. If, however, the possibility exists for higher-than-expected losses, then the initial capital must be sufficient to make up the difference and permit the captive to continue into the following year without becoming technically insolvent. For example, if premiums are \$1 million, but there is a possibility that a frequency of \$50,000 claims might result in total incurred claims before the end of the year totalling \$1,500,000, then the capital must be a minimum of \$500,000 -- event though most of these claims will not have to be *paid* the first year.

This capital must be physically segregated and deposited for the captive's account (although some portion of it might be backed up with a letter of credit, this method of capitalization is generally not practiced). The commitment is sometimes too great for parents, especially groups or associations, to make.

6.3. Risk of adverse results

In raising the specter of heavy losses in the previous paragraph, we have touched upon the principal disadvantage of captives. It is the reason most commonly encountered when information is incomplete, or the risk-taking propensities of the owners are too low to begin with. The most important calculation of all in the captive feasibility study is the projection of future losses, and the second most important calculation is the variability of the first. In other words, what is the "heavy loss" case? There are only two things that could conceivably "go wrong" with a captive : that losses were higher than expected, and that reinsurance protection originally planned is no longer available. The first is by far the most likely.

6.4. "Innocent capacity" problem

Professional reinsurers never cease reminding captive owners of the problems in store for them if they fail to understand the long-term nature of the insurance business. Many critics of captives have dubbed their attempts to underwrite unrelated business as "innocent capacity" which will be used by the rest of the world market to insure substandard or low-grade risks. Either the captives are truly travelling a different underwriting path, or the inability to understand this conventional "wisdom" will be their undoing. This disadvantage will only be revealed over time.

6.5. The captive as cop-out

There is a distinct disadvantage for risk management at the parent level in that the captive may become an all-engrossing entity in itself. To quote from our 1981 annual review of captives :

"One of the potentially most serious disadvantages of a captive insurance company for any organization is the distraction from the job at hand. The role of the risk manager is not just insurance, or even alternative means of risks financing, but directing the entire risk management effort. A captive insurer can be, and often is, a time-consuming enticement for the manager. He or she spends an inordinate amount of time studying the feasibility of the company, "selling" it to senior management, and when it has been created, being sucked into the "insurance game" via pools and reinsurance. If outside risk is underwritten, for profit or only to attempt to justify the deductibility of the parent premiums, even more time may be devoted to the captive. We must admit that, to some extent, this is only natural. Many managers have come from the insurance industry. They feel much more at home with insurance and insurance jargon than with the less defined and changing elements of "risk management". If your strong suit is knowledge of insurance, why trade this for the problems of developing a contingency plan for environmental pollution or making subjective risk assessments for worldwide political risks, for example? It's far easier to slip back into the trade you know best — insurance, using the captive insurance company as your cover.

And yet, this is really a cop-out : we face many new and challenging problems, problems which *should* be addressed by the organization's risk manager. It is a time to stretch and expand horizons and capabilities, not retrench. Therefore it is important to see the captive insurer for what it really is : one of a number of useful tools in risk financing and administration, all of which are a part of the broader risk management picture." ⁶

7. The income tax situation

We have mentioned earlier the tax factors which have been important to the development of captives. In this section, we review the increasing resistance of U.S. tax authorities to deductibility of premiums paid to captives, and the taxpayers' reactions. These shifting positions of strength and negotiation are illustrated by :

- Internal Revenue Service (IRS) Revenue Ruling 77-316 (1977);
- the Carnation case;
- the Risk Retention Act;
- the Loss Reserve Deductibility Bill (proposed legislation).

7.1. Revenue Ruling 77-316

The U.S. IRS has never admitted the deductibility of premiums paid to a captive, whether foreign or domestic in domicile. This follows from its antipathy toward

⁶ Risk Management Reports, Vol. VIII, No. 1, p. 18 (January-February 1981).

deductibility of any payment to a self-insurance reserve or contingency fund of any kind. It is obvious that the IRS considers captives as just another aspect of self-insurance, and any other name given to them does not gain them any more arguments toward deductibility. The official position against captives is set forth in Revenue Ruling 77-316, issued in August, 1977. The ruling essentially denies a U.S. parent company any deduction for any premiums it pays, directly or indirectly, to a captive. Three specific cases were explained in the ruling, covering virtually all parent-captive premium transactions :

- 1. The U.S. parent and its subsidiaries insure their loss exposures directly with the captive. The captive does not enter into any reinsurance arrangement with respect to this coverage. The IRS position is that none of the premium is deductible.
- 2. The U.S. parent and its subsidiaries insure their loss exposures with an unrelated U.S. insurance company under a "fronting" arrangement. Only the proportion of the premium that remains with the unrelated fronting company is deductible.
- 3. The U.S. parent and its subsidiaries insure their loss exposures directly with the parent's captive, and the captive reinsures some part of this coverage with an unrelated insurance company. In this case, only the reinsurance premium is deductible by the U.S. parent and its subsidiaries.

The theory presented in this ruling is that any arrangement with a wholly owned captive cannot be considered insurance because there is no transfer of risk outside the "economic family", a term invented specifically for the purpose.

7.2. The Carnation case

One U.S. taxpayer whose premium payments were disallowed decided to take the fight to the courts, and took its case through an appeal all the way to the U.S. Supreme Court, which refused to hear the appeal. Carnation lost each time, but the arguments presented, which attempted to litigate the very heart of the matter, were never addressed — only the facts, which were weakened by a capitalization agreement the parent had made with the captive. Carnation argued the point that premiums should be deductible as long as they are transactions conducted on an arm's length basis, that the captive is a bona fide insurance operation, chartered and operated as an insurer under the laws of the jurisdiction where it is incorporated, and that premium payments to it as a wholly owned insurer should therefore be deductible too.

The IRS argued vehemently against this idea :

"This arrangement was in substance but a complex self-insurance plan, payments to which are not deductible... Is taxpayer saying that all any corporate taxpayer has to do to avoid the prohibition of tax deductions for self-insurance reserves is to incur the minimal cost of creating a wholly-owned subsidiary to receive the transfers which would otherwise be made to such reserves? If so, then we submit that the acceptance of tax payer's position would effectively emasculate the principles of tax law designed to prevent such transparent tax avoidance schemes." 7

The taxpayer's position, presented clearly by Carnation, was that :

"The Commissioner is attempting here to obtain a broad authorization to upset all insurance transactions between related corporations... [he] is engaged in nothing more than a transparent attempt to circumvent the requirement imposed by existing authorities that he analyze individual insurance transactions between separate corporations under existing tax law principle. At the same time, he refuses to defend the underlying principle of Rev. Rul. 77-316... The defective principle of Rev. Rul. 77-316 is the same, however, whether the corporations in question are related by 100 percent ownership or by some lesser percentage, and whether or not the insurance corporation insures the risks of unrelated as well as related entities." ⁸

Unfortunately, the separate entity argument was not litigated; the case was decided purely on the technical facts.

One of the outgrowths of Revenue Ruling 77-136 and the Carnation case has been the rush to engage in unrelated business for captives. This is perceived as a defense if audited by the IRS, in that the insurance company is more "bona fide" than if it wrote only parent-related business.

Unrelated business has become of such interest that many misleading ideas are heard in the marketplace. The most misleading of all concerns the "safe percentage", that is, the minimum percentage of a captive's total earned premiums that should be attributable to unrelated business in order to satisfy the IRS. Folklore suggested that the figure was 25 %. Some observers say that it has recently crept up to 50 %. Whether cited by a tax counselor, a purveyor of reinsurance treaties, or someone else, all such figures are theoretical. The IRS has given no indication, official or informal, as to what percentage of outside business it deems sufficient to support deductibility of premiums paid by a parent to its captive.

If the unrelated business concept should ultimately change the mix of captive business, the change could defeat the purpose of a parent's use of its captive in the first place. To the extent that a captive writes insurance or reinsurance on unrelated business, the captive takes on the coloration of a conventional insurer or reinsurer. Here is an interesting comparison : during 1981, overall commercial reinsurance combined ratios approached an average of 110 %, while those of normal captive business probably averaged less than 50 %.

7.3. Risk Retention Act

At the same time that the position of the IRS was hardening toward captives, taxpayers succeeded in gaining passage of a law permitting formation of insurance pools

⁷ This quotation is taken from the briefs of the appeal documents (Carnation Company versus Commissioner of Internal Revenue 79-7218, Ninth Circuit).

⁸ Ibid.

onshore (and, in limited cases, and for a limited period, offshore) to cover product liability and completed operations loss exposures only. HR 2120, passed in 1981, actually creates the vehicles for grouped self-insurance that the IRS has been so actively crusading against. There is, however, no tax relief of any kind implied in the new legislation, and, in fact, experts agree that a "risk retention group" will probably be considered an insurance company. Taxation of its profits and investment income, as well as premiums paid to it, will only stand if the IRS considers each pool to actually be an insurance company. So, it would appear that in some ways the creation of self-insurance reserves through special-purpose insurers (the word "captive" must disappear for the IRS ever to be satisfied) may become a potential for beleagured taxpayers through this new legislation.

7.4. The Loss Reserve Deductibility Bill

An even more striking attempt by taxpayers to press their agument is a joint effort by the Risk and Insurance Management Society and the Captive Insurance Companies Association to have legislation enacted permitting the deductilibility of casualty loss reserves — the exact opposite of the IRS' entrenched position all along! There are solid arguments in favor of such a position, of course, and some observers give the attempt a chance at passage within 1982 or 1983, although phasing-in of the effect may be a compromise which will make it palatable to the U.S. Congress.

The tax aspects of captives can be seen in the perspective of the two main themes of this article : the attempt by tax payers to create reserves against increasingly unstable and unpredictable events, and the tax authorities being unwilling to allow such protection to be an allowable business expense, to be deducted from profits. The same dialogue has just begun in the U.K., where position papers by the Inland Revenue have taken much from the experience of the American IRS. There is no truth or rule in these tax issues. There are only positions, strategies, and opinions.

8. Conclusion

The captive insurance company movement, dominated by captives from the U.S., is a striking example of the way in which a perceived problem is solved by creating a new financing mechanism. Captive insurance companies have proved that they can be operated more efficiently than conventional insurers, and they do provide some degree of relief from the instability and unpredictability of the world economic scene. Their future, however, is somewhat more cloudy. Their potential evolution into "senior" captives, becoming more insurance subsidiary than insurer of parent risk, may bring them into direct conflict with the established world market. Most conventional underwriters express serious misgivings about the longevity of captives underwriting outside risks — the "innocent capacity" view is widely held — and if their fears are substantiated, the resulting financial fallout in the market could be very serious. Yet there are signs that these insurance companies may well mature and persevere, bringing a new form of underwriting and higher level of efficiency to the market place, both of

which can be beneficial. Their operating ratios are very conservative and the quality of their financial management is superior, coming, as it does, from the senior financial personnel of some of the best-managed corporations in the world. The traditional market can, and probably to some extent will, respond to the captive challenge by bringing out new products which are more cost-effective, and this, too, will affect the future of the movement.

Groups and pools seemed to be receiving the most attention as 1981 ended: the potential for groups has been accentuated by the passage of the Risk Retention Act in the U.S., and the meeting cited at the beginning of this article is a clear example of how like-minded corporations are searching for new and less costly methods of funding for their common risks of accidental loss.

As the list of loss exposures affecting organizations in the world today grows, new and more cost-efficient techniques of funding for these risks must be developed, if only to encourage the economic growth which will enable organizations to respond to world problems with new technology and new solutions. The captive insurance company phenomenon has already played a major role in the economic marketplace and, we suspect, will be an even more important element in the next decade.

APPENDIX

RISK PLANNING GROUP, INC. ANALYSIS OF DOMICILES FOR CAPTIVE INSURANCE COMPANIES WESTERN HEMISPHERE

March, 1981

Page 1

	BERMUDA	BAHAMAS	CAYMAN ISLANDS	NETHERLANDS ANTILLES (CURACAO)	PANAMA	COLORADO	TENNESSEE	VERMONT
Local Taxes	Income, exempt companies none unit 2006. Annual lee: 832,250	Annual fee of \$1,000. No income or premium taxes	Income: none (30 yr. exemption). Class B- annull license fee of C\$3,000	24.30% on net taxable income from within Netherland Anli kes investment max. 3%	Exemption on rein- surance profits from loveign risks	Colorado premium tax: 1% on direct premiums. Exempt from mandatory pools & guaranty funds. Subject to U.S. income tax.	Tennesse premium tax: 1% on direct premiums. Exempt from mandatory pools & guaranty (unds. Subject to U.S, income tax.	Vermont premium tax: 1% on direct premiums, Exempt from mandatory pools & guaranty funds, subject to U.S. income tax.
Local Office Requirement	Registered office and wo resident directors required	Principal office in Bahamas and principal representative	Registered office required		Two resident attorneys- in-fact, one of which must be a Panama citizen	Principal and home office in Colorado	Office required	Principal place of business in state. One directors' mtg. per year in state.
Reserve \$ Requirements Underwriting	Minimum solvency margin 510 1 premium to captive/surplus	Minimum solvency margin 510 ? premium to capthefsurplus	None, but Superintendent is asking maximum 3 to 1 performation contal/surplus ratio contal/surplus ratio risk to capital/surplus ratio		2.5% of premiums sub- carbed in "locals" reserved in "local of reserve" (for one year)	Outside risks now permitted. No presonal lines or employee nay not exceed 10%. Man permium 5500.000 for premium 5500.000 for premium 5500.000 for premium 5500.000	Individual risk may not exceed 10% of cap. & surp. No personal lines permitted. Limited ines porticistonal Ecko to porfessional Ecko May write reinsurance business.	No specific regulations: "sound and pudent." No minimum premiums ex: "Industrial naured." \$35,000 No personal permitted.
Reporting Requirements	Annual financial report report – auditor's report – solvency certificate must be reviewed by auditors	Certified copy of accounts to registrar (confidential)	Class B-written confirmution of auditor on amusi accounts. Changes in must be reported must be		file audited financial statement with rein- surance commission	Annual convention statement	Annusi convention statement	Annual accounting report before March 1. Convention statement for "Association" captive.
Estimated Number of Captive Insurers March, 1981	About 1,000	10-20	200-250, but only half active	25:30	10-15	25	•	NONE

RISK PLANNING GROUP, INC. ANALYSIS OF DOMICILES FOR CAPTIVE INSURANCE COMPANIES WESTERN HEMISPHERE

Page 2

March, 1981

	BERMUDA	BAHAMAS	CAYMAN ISLANDS	NETHERLANDS ANTILLES (CURACAO)	Panama	COLORADO	TENNESSEE	VERMONT
Applicable Acts	Exempted Companies Act-1950, Insurance Act-1978 (effective Jan. 1, 1980)	The Insurance Act of 1969. The Non-Resident Insurer (exemption) regulations, 1978	The insurance Law. 1979. (Law 24 of 1979) Companies Law-1969	No captive legislation	Law Number 72, December 1976	Article 6, Title 10, Coforado Revised Statutes 1973	Tennessee Caplive Insurance Company Act of 1978	Public Act 28 Title 8, Vermont Statutes Annotated, Chapter 141
Regulatory Juradiction	Registrar of Companies: Insurance Advisory Committee	Minister of Finance: Registrar of Companies	Superintendent of Insurance (John Darwood)		Registrar of Companies - National Rein- surance Commission	Division of Insurance; Department of Regu- latory Agencies (J. Richard Barnes, Commissioner of Finance)	Tennessee Department of Insurance and Banking ijohn C. Neft, Insurance)	Department of Banking a Invurance (George A. Chalfee, Commissioner)
Registration and Incorporation Expenses	Stamp:- ¼ of 1 % on initial authorized capital	Initial registration— 5. 000. Stamp duty —5.000 for frigr 5. 000 of authorized captal, plus 53 .00 for each additoral 51 ,000	Incorporation: – J, a dufforized capital (initial) min. CySQ: min. CySQ: mar. CySQ: Fiest CS4, 100	eu V V	See annex #5 See annex #5 \$1,000 for investigation tex for good standing.		\$100 initial \$50 Annual	\$200 Initial \$300 Annual license
Investment Restrictions	75% of "general insurance labilities" must be in "admissable assets"	None for non-resident companies	None for restricted Class B companies. For others, power exists to restrict investments			Requirements for other Colorado companies	Requirements for other Tennessee companies	None for "Pure" or "Industratinsured." "Association"—same as for other admitted insurets.
Capitalization	General business \$120.000 Long-term business \$55.000 Business \$55.000 \$ minimum higher as prentium increases	Life cos: 5300.000 cap ⁴ surplus. Ohrer cos: 1 40.000 cap/surplus. 1 premium los 1 han 2 70000.2 259 et 1 premium lo 2 frailion 1 gremum or 1 premium premium public 1 0 gremum or 1 premium million il premium	Unrestricted Class B- Minimum restricted Class B- restriment of restriment of restricted class 2000 combination- U\$\$3240,000 U\$\$3240,000	US\$600.000 authorized; US\$120,000 paud in	capital capital	\$75,000 for wholly owned captives: \$1 million for association captive-letter of credit permitted	375.000 for wholly owned captives: \$1 million for association captive-letter of credit permitted	"Pure" – 3,250,000 C&S "inductival Insured" – \$50,000 C&S "Storation" – 3750,000 CAS "Storation" – 3750,000 CAS In cash or interedule lettors of tredit approved by commissioner

Other Western Hernisphere domicles: U.S.--Virginia (available only to Virginia). Other-Tunks and Caiccos, Torota (British cost partice), and Arizona (credit life: Virgini Naruds) comparies). March, 1981

RISK PLANNING GROUP, INC. ANALYSIS OF DOMICILES FOR CAPTIVE INSURANCE COMPANIES EUROPE AND ASIA

	-		EUROPE A	ND ASIA			
	GUERNSEY	ISLE OF MAN	CIBRALTAR	CYPRUS	HONG KONG	NEW HEBRIDES	SINGAPORE
Applicable Acts	Protection of Depositors, Companies and Prevention of Faul (Bailiwick of Guernsey) Law, 1969- tother legislation pending)	Companies acts 1931.1974. Companies (captive insurance business) regulations: 1978	Assurance Companies Ordinance, cap.30	Exempted from itrurance Companies Laws 1967 to 1976	Fire & Marine Insurance Company Deposit Ast	Legislation 1971 Insurance Regulation 1973	Insurance Act (Chapter 193) of 1967
Regulatory Jurrsdiction	States Advisory and Finance Committee	Financial Board	Financial & Develop- ment Secretary, and Deputy Covernor	Superintendant of Insurance	Inland Revenue Commissioner	Commissioner	Monetary Authority of Singapore (MAS) Insurance Commissioner
Registration and Incorporation Expenses	Filing fee: ESC Registration f. s.: 125. Registration f. authorization. 15 of authorization. Capital minimum 125	Initial registration fee: 2.250	Y, fr. dury on authorized capital (initial). No continuing dury	CT20 min. to CT150 max. plus CL.25 per L100 nominal capital	HK5300+4% of capital	Registration \$1,000 for exempted companies	
İnvestmeni Restrictions	UK exchange controls abolished 1979	Exchange controf regulations of UK	Subject to exchange control regulations of UK		Nane	None	Assets of insurance fund to be separate from other assets
Capitalion	No minimum, unless "Insurance," used in name -then £100,000 required		t 10,000 paid-up capital	C£ 10,000	HK\$S million	No requirement	\$\$1,000,000 (\$\$300,000 paid in)
Local Taxes	20% on investment income (200 p.a. only for comparison (200 p.a. only but no fonger possible to incorporate on its basis), or 20% on net profix, 20% on both in- profix, 20% on both in- vestment & underwriting income for outside business (option)	20.5% on investment income (underwriting pacifis exempt)	Evernpi co	4.25% on profits	Corporate Lax—17%	Samp dules. No income or incorpor- ation tax. Annual lee \$1,000	10% on profit from non-Sruppore busi- ness: 4% on Singupore business
Local Office Requirement	Registered office required	Registered affice required	Registered affice required	Registered office required	Repistered office required		Registered affice required
Reserve S Require- ments Underwriting			Non-exempt 10% solvency requirement				Surplus of assets over liabilities of \$\$1 million
Reporting Requirements	Annual accounts required but not to be filed	Quarterly financial statements	Annual accounts (considential)	Annual accounts	Annual accounts		Annual accounts (published by MAS)
Estimated Num ber of Captive Insu rers March, 1981	120-130	10-20	10	3	5-10	10-20	2
Other Domiciles: Shannon, Ir	reland, Nauru (Pacific)						

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