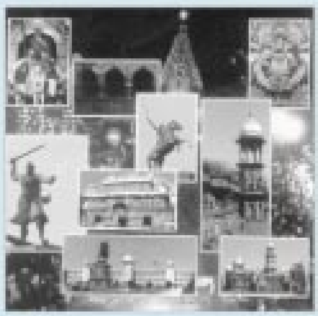

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THE Journal

OF INSURANCE INSTITUTE OF INDIA

खंड नं. XXXII जनवरी - जून २००६ Vol. No. XXXII January - June, 2006

Printed and Published by
S. J. Gidwani, Secretary-General,
for the Insurance Institute of India (Regd.)
Universal Insurance Building,
Sir P. M. Road,
Fort, Mumbai - 400 001.

Printed at
Eastern Printing Press
Crescent Chambers,
56, Tamarind Lane,
Fort, Mumbai - 400 001.
Tel. : 2265 5467, 2265 2337

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Registered with the office of the Registrar of Newspapers for India (Regd. No. 31878/77)

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EDITORIAL

It may be a providential dispensation that during the Golden Jubilee Year, the Institute has acquired its own campus, where there will be physical integration of the Institute office and the College of Insurance - educational and training wings - under one roof. This may open up new avenues for academic integration between the two wings. The two entities will have, no doubt their separate agenda, but at some point there may be fruitful convergence.

Two areas of this convergence may be identified as Oral tuition classes in relatively difficult and complex subjects for the Institute examinations e.g. Actuarial Applications in general insurance, Risk Management, Health Insurance, Pension Management or other new subjects as and when introduced and, management of Postal Tuition System for which the response from candidates in recent years has been found to be lukewarm. The latter may have to be revamped based on a nationwide study conducted with the help of Associated Institutes on the need for, and methods of the system.

The own agenda of the College needs to be examined to make an objective assessment of its performance during the four decades of its existence, a review of existing courses based on participants' and sponsors feedback and to formulate modified or new courses, in tune with current and future requirements of the insurance industry.

The College has remarkable achievements to its credit and has achieved recognition in India and neighbouring countries. But now is the opportune time to reorient its training curriculum and training methodology. It is but natural that in any training institution the mindset is conditioned by past thinking and practices which have to be modified by a conscious de-learning process.

Fundamental and far-reaching changes in insurance regulatory law, multiple new products, new intermediaries, sustained IT applications in insurance operations, etc. have altered the insurance landscape.

To cite a few examples: The impending de-tariffing of fire, motor and other classes of insurance business demands new curriculum and new approach to training. The immediate need may be to conduct re-orientation programmes to familiarize the participants with the new rating and underwriting in these classes. The policies and practices of insurers, both public and private, and the IRDA guidelines on the issues involved, will naturally influence the curriculum.

The other areas, inter-alia, which need new courses are: health, micro-insurance, rural insurances, role of intermediaries like bancassurance, third party administrators, etc. new schemes of life insurance and pension management.

Needless to say, there is a need for a strong academic infrastructure for the College, in terms of full time faculty and research staff and, no doubt, part-time faculty which has sustained the College for four decades.

PRESIDENT'S ADDRESS

Speech of

Shri A. K. Shukla

President

Insurance Institute of India

At the

99th Council Meeting at Kolhapur

on

April 30th, 2006

Dear Council Members and Delegates,

It is my pleasure to welcome you all to the 99th Council meeting of the Insurance Institute of India. This is my first address after my election as the President of the Institute in the last Council meeting held at Mumbai on 30th September, 2005. As has been the tradition, this meeting is hosted by one of the associated institutes, Kolhapur Insurance Institute. Coincidentally, the host institute is also in its Silver Jubilee year. I on my own behalf and on behalf of the Insurance Institute of India congratulate the Kolhapur Insurance Institute for reaching the milestone of 25 years of dedicated service for the cause of promotion of insurance education and training in and around Kolhapur. I also take this opportunity to thank the Chairman, Secretary, Volunteers and other members of the host institute for volunteering to hold this meeting at Kolhapur under the auspices of Kolhapur Insurance Institute. As you are all aware to organize and successfully accomplish such meeting, requires good teamwork.

Kolhapur is a beautiful city, situated in the South-west corner of Maharashtra. It is situated on the banks of the river Panchganga. Many hills and forts like Panhala fort and Jyotiba temple hill surround the city.

The city is also famous for training wrestlers. The city is famous for making leather foot wear, popularly known as Kolhapuri Chappals. It is said that Kolhapur was founded by Daitya (Demon) Kolhasur(foxdemon) who then was troubling people, so Deity Mahalaxmi came to rescue and killed him. On honouring the dying demon's wish, the city was named after him. Hence the name, Kolhapur. One interesting information, it is said that no one count pillars of the Mahalaxmi Temple, anyone who tries calls himself death. Some places of interest around Kolhapur are Rankala lake, Panhala fort, Mahalaxmi Temple, Jyotiba temple and so on. The host Institute had arranged the sight seeing program yesterday and all members might have enjoyed seeing these places. I am sure the members will carry with them pleasant memories of this city when they return home.

This Council meeting which was scheduled on 29th April, 2006 need to be postponed today because of my retirement from LIC of India and my presence was required on 29th at headquarter. I regret for the inconvenience caused to all of you.

This meeting known as Mid-Term Council Meeting, inter-alia, will mainly discuss on the Budget provision of the Insurance Institute of India and its College for the financial year 2006-07. The Budget copies are already with you. As can been seen, we expect a slight increase in the income over the previous year, on account of interest earning from investment, from pre-recruitment examination for agents and on introduction of new programmes in the College. On the expenditure side, we have made higher provision for computer systems, repairs and maintenance, salary to the employees, rent and other establishment expenses etc. The members might have seen the justification note for provision both on income and expenditure side of the budget. The overall surplus is expected to be lesser than the previous year.

The Institute has been able to maintain a steady growth in the past five years or so mainly because of conducting pre-recruitment examination for the agents. But I must say, in order to conduct this examination more efficiently, the Institute is put under several pressures. Cases of malpractice by the candidates in the examination has reached alarming proportion. The Institute is taking maximum care to ensure that the examination is conducted in a fair manner. For conducting pre-recruitment examination through computer based online method, there are cases of impersonation of the candidates. In such cases, strict disciplinary action is taken against the companies which have sponsored such candidates for the examination. We are in dialogue with IRDA to start online examination centres of our own. To begin, we have taken a premises in Mumbai on rental from LIC of India. We plan to start in metro cities in a phased manner.

The traditional examination of the Institute is no longer giving us satisfactory number of candidates. We contemplate to change the system of this examination, making it more flexible and convenient by introducing 'point system'. It is hoped, this will bring in more candidates for giving the examination. Statistically speaking, total number of entries for the professional examination of the Institute have come down to 26,147 in October, 2005 from 27,650 in May, 2005 examination.

On the pre-recruitment examination for agents, in the manual mode total number of candidates registered during the year were 4,75,253 an average of about 40,000 candidates per month. This examination is conducted twice in a month in more than 100 centres. Through online examination mode, total number of candidates registered were 2,64,796. This mode of conducting examination is assigned to selected companies like Rimari IT, Saifa, IIBF, IT associates. While IIBF (Indian Institute of Banking and Finance) are new entrant to conduct online examination, Shriram Cybertech, a company which was doing online examination has been withdrawn from 1st April,2006. MAIRM a company which was also engaged in conducting online examination have withdrawn on their own. As the genuineness and high sanctity are important aspects in conducting this examination, we have been careful in assigning this job to any outsiders without going through thoroughly their background. It is the reason for considering of taking over the online examination activity by I.I.I. on its own.

The construction of building for the I.I.I. is progressing steadily. Building plan approval from the Local Municipal Corporation is being obtained. As you are aware, the construction work is entrusted to the Engineering Department of LIC of India, Western Zonal Office.

I am pleased to inform that we have been granted approval by the Pension Regulatory and Development Authority, Government of India to start Pension Institute as a subsidiary to I.I.I. Regarding the training activity for Postal Life Insurance for recruitment of agents, we have not received further response from the concerned authority and hence no progress in this subject. Some of the associated Institutes which have responded and agreed to conduct the training for Postal Life Insurance are requested to wait for some more time.

Because of busy schedule of examination activities round the year, the work load has increased substantially in the Institute. Though, we are upgrading our computer system and adopting new and better technology, it has become necessary to add more manpower. Therefore, we have done new recruitments, recently.

After my election as President of I.I.I., this is my first address to the Council members. Being a pioneer Institute, we must lead forward to face the challenging situation ahead in the area of insurance education and training. I appeal to all the members present here to give positive thought for the progress of this 50 year old institution. I need the support from all to judiciously carry out my responsibility. I thank all the members of Board of Education and Administration Committee for their support and guidance.

Let me once again thank the host Institute for the excellent arrangement made for this Council meeting.

Thanking you,

FEDERATION OF AFRO - ASIAN INSURERS AND REINSURERS (FAIR)

Speech By The Outgoing President of Fair, Mr. Albert Joel Nduna Presented at The Fair 19th Conference , Mumbai, India, 19th To 22nd September, 2005

First and foremost I would like to bring Greetings from Zimbabwe, where 24 months ago we gathered for the FAIR 18th Conference which was opened by the Acting Minister of Finance, Dr. John Nkomo, now Speaker of Parliament. His message was Africa and Asia has a lot to benefit from cooperating in their Economic and Insurance endeavours. The theme of the conference was 'Pooling Regional Resources in the face of Globalisation : A strategy to success' and 5 papers were presented to support that theme. It is pleasing that from the home of one of the seven wonders of the World - Victoria Falls to another wonder of the World - Taj Mahal exuding a natural phenomenon and human phenomenon respectively both endowed with unparalleled beauty and completeness.

It is gratifying that the Government of India, General Insurance Corporation of India (GIC), the India Insurance Industry, and the Insurance Regulatory Development Authority of India (IRDA) all landed their support in facilitating the hosting of this conference. We all appreciate the gesture of goodwill and commitment to FAIR. The recent past conferences have been held as follows :

1989	-	Beijing, China
1991	-	Khartoum, Sudan
1993	-	Kuala Lumpur, Malaysia
1995	-	Cairo, Egypt
1997	-	Bali, Indonesia
1999	-	Tunis, Tunisia
2001	-	Manila, Phillipines
2003	-	Harare, Zimbabwe
2005	-	Mumbai, India

I want to thank the members of the Organizing Committee who were responsible for the excellent preparations and the warm hospitality given to all the delegates, a feat which has become known of this country, and as happened last year when the Association of Insurance and Reinsurance in Developing countries (AIRDC) were well treated in New Delhi.

Objectives of FAIR

Honourable delegates, assembled here today, are representatives of the Insurance Industries in Africa and Asia as a testimony of a collective desire to educate and learn from each other on insurance and reinsurance businesses and all related matters, especially creating and strengthening understanding as a basis of business relationships, well supported by delegates from other continents signifying the world nature of insurance and reinsurance.

FAIR was established in September 1964 with the objective of promoting close cooperation between insurers in Africa and Asia through regular exchange of information, technical expertise and the development of reinsurance relations.

It was therefore imperative that there should be means to establish and maintain permanent contact among members, as buttressed by bi-annual conferences, interchangeable between the two continents. It is critical that there should be regular collection and analysis of data, experiences and information to be exchanged at first hand level between and among members. This again is done through conferences like this one, seminars, magazines and visits. Prior to the establishment of FAIR there were few insurers and reinsurers in Africa and Asia established as indigenous institutions mostly by Governments following political independence. In Africa, it was seven years after the independence of Ghana in 1957 with the clarion call for self determination in all aspects. In Asia this great nation had got its independence in 1947, and others later. Despite having set up these institutions in respective countries, there still was something missing in going it alone - a situation previously created and exploited in popular dogmas of divide and rule. The bell rang and was heard for cooperation to get out of isolation and threats then, because some of the institutions were created through nationalization and similar affirmative actions to the chagrin (displeasure) of foreign institutions. While the origin might have been rich ground for confrontation with previous operators, FAIR adopted a professional stance that while there should be a strong Afro-Asian insurance base, it should be remembered that insurance is always international in theory and practice. Some of the professionals running Afro-Asian institutions were from outside the continents including from previous owners and controllers. Some of the founding members of FAIR had such external assistance, as witnessed at FAIR gatherings, there is strong attendance of delegates from outside Africa and Asia. The difference now is that Asia and Africa have their own association made up of majority owned local institutions which have closer reach to the socio-economy of their respective countries. FAIR is a catalyst promoting the aspiration of its members and it has been and is a great success. In terms of membership, FAIR boosts of 188 members and 6 correspondent members. The benefits are immense and hence the organization continues to attract new members, as at this conference alone, over 15 insurance and reinsurance companies from over 10 countries will join the association.

In its endeavour to develop closer cooperation among members, FAIR created pools as vehicles to generate reinsurance business and retrocession capacity for members. The FAIR Reinsurance Pool covers mainly Fire, Marine and Accident classes of business, and is operating at 39 million pounds premium in 2005 and the results have generally been good. It is managed by Milli Re in Istanbul, Turkey. The FAIR Aviation Pool is managed by SCR Morocco as is growing and registering positive results. The FAIR Oil and Energy Syndicate managed by Trust based in Bahrain, is doing well with premium growing.

We congratulate and thank the managers of these pools because it needs commitment and dedication to the cause of FAIR. It is also an appeal to FAIR members to join these pools as members, and support them by placing treaty and Facultative business. These are tangible FAIR success stories of which we should be a part also. Let us not be spectators to the developments of FAIR.

The FAIR Reinsurance Forum, which provides a platform for members interested in the growth of underwriting capacities of companies, met regularly to exchange business information and experiences.

The FAIR Oil and Energy Underwriters Forum, whose main objective is to develop capacity and provide expertise in order to deal with the challenges faced from the complex and sophisticated oil and energy industry risks, continued to be active.

The FAIR Life Insurance Forum which is dedicated to the development of life assurance business has also become of age. The Life Insurance industry in members states still faces many challenges including low penetration ratios.

Special attention is given to the exchange of knowledge in the areas of product development, actuarial practices, technology transfer and development of marketing skills for insurance. As most of the economies in FAIR countries are rural based, attention is focused on the provision of appropriate insurance for rural communities whose economic activities are predominantly based on agriculture.

Skills development is a key ingredient in making African and Asian Insurers and reinsurers competitive on the world markets. Members of FAIR require to continuously upgrade their technical and managerial expertise in order to match those of the developed world. To this end, FAIR Conferences, workshops and seminars are organized in African and Asian Countries to uplift the skills to higher levels. FAIR also supports research in field of insurance. The existence of superior skills in insurance in the FAIR member countries is one of the key ingredients necessary for global competitiveness, high productivity and general economic development.

FAIR focuses on the area of risk management and loss prevention which if managed properly, would have positive impact on the levels and severity of claims and company profitability. Member countries are facing a number of new risks brought about by increases levels of industrialization and FAIR should develop specialist knowledge to counter the emerging risks.

Global financial scandals in the recent past have highlighted the need for the insurance industry to focus on its governance practices. FAIR recognizes that there is need for the industry to put additional internal checks and balances in order to improve the integrity of the industry. There is need for the organization to come up with guidelines on governance that will assist governments and the insurance industry to better protect the interests of policyholders and shareholders.

Conference Theme and Related Issues

The Conferences will discuss numerous topics under the theme 'Insurance and Reinsurance Scenario - Future Outlook' which I believe to be appropriate, as it encapsulates the challenges that is faced by the insurance industry and the appropriate strategies to be adopted to counter them. There are stimulating papers to be presented during the Conference which will address some of the challenges faced by the industry.

Challenges for FAIR and the Insurance Industry

Without pre-empting the discussions in the papers that are going to follow, allow me to mention a few challenges that FAIR and the insurance industry are facing and will continue to face in the near future.

Natural Disasters

The last few years have seen a rise in natural disasters which have had an impact on insurance and reinsurance industries. The Tsunami disaster in Asia on December 2004 caused serious socio-economic losses and over 300 000 lives were lost, and a reduction in GDP of up to 1% in most of the affected countries is anticipated this year from its effect. This year on August 29, Hurricane Katrina hit the United States of America Gulf States, and caused loss of lives, dislocated people and the economic impact is estimated at over US$100 billion. Hurricane Nabi in Japan has also similar effects through at lower levels.

The greatest challenge is that the Risk management strategies continue to fall short of the needed levels, and insurance and reinsurance should enhance its participation in national discussions and efforts to address, manage and combat natural disasters, including the whole process from predictability, protection evacuation, rescue, rehabilitation and capacity to meet insurance and reinsurance obligations especially claims settlement. The time to do it is now in our respective countries, regions and continents by establishing ourselves as partners with national governments and relevant international organizations.

Terrorism Threat

Terrorism is a socio-economic quagmire which we pray and hope that answers and solutions would be found to its cause and source. In the meantime insurance and reinsurance should alleviate the social and economic impact on the affected people and institutions. There should be preparedness and covers for it. There is need to explore the creation of FAIR Terrorism Insurance Pools to cover on an optional basis, property damage and operational disruption arising from acts of terrorism. The South African Special Risks Association (SASRA) is an example of such a scheme which can be extended regionally and beyond.

Legislations and Regulations

While the world is talking about liberalization in one breadth, there will be greater legislations and regulations to combat new challenges both really and perceived in social, economical, environmental and political spheres. There will be great demand on people and institutions to meet and observe the laws, and penalties for non-compliance. This in return will need insurance and reinsurance protection.

Besides generic regulations, insurance companies and practitioners themselves will come under more regulations on how they operate for proper conduct of insurance business and protection of policyholders and shareholders. There will be increased capital demand for solvency and to operate insurance business itself. But proper legislations are essential in ensuring that companies are financially solvent and that there is stability in the insurance markets. Countries without the right levels of supervisory regulations are likely to fail in the globalization environment which requires both traditional supervisory and developmental approaches. While there must be proper national legislations, there should also be regional and continental approach on insurance and reinsurance supervision for harmony and exchange of business.

Capacity

Due to rising risks in magnitude and complexity, there is rising demand for insurance and reinsurance more than capacity available. There is rising economic activities in Developing countries which are not matched by increase in insurance and reinsurance capacity from same regions. Developed countries which are major providers of capacity covers for the world have their own needs, and will be very selective in whom they offer what covers and at what cost and terms. The call is for FAIR countries to develop greater capacity for their respective countries, regions and their continents. There should arise mega insurers and reinsurers in our countries and continents to meet basic insurance and reinsurance needs of Africa and Asia, so that these two great continents go to Europe, America and other developed economies for really mega and complex risks. There should be a logical progression that over 80% of the risks should come under local covers. Capacity in capital and expertise should be created for such to happen. This calls for deliberate national and company policies and strategies and cannot happen by mere business-as-usual attitudes and comfort zones. While the appeal is for everyone to wake up to the challenge, it is a call more to those who have reached the critical mass in capital and expertise to provide the leadership by being available and accommodative. It is a win-win affair for both, and for Africa and Asia. Singleness may not deliver and / or sustain the great heights we may be visioning. Let us work together. Capacity consideration should be based on modern information and Communication Technology if we are to effectively and efficiently meet the socio-economic needs of Africa and Asia.

Capacity creation and enhancement should include development of Education and Research Centres of the greatest repute at country and regional levels to catapult the level of insurance and reinsurance operations to greater heights. There should be publications on our operations, and our research findings so that the FAIR insurance industry is adequately profiled. At times, FAIR does not get fair recognition because of sketching attacks deliberately by competitors and ignorantly by innocent players. FAIR should speak for themselves directly with each other, through E-mails, newsletters, visits, etc. Communication through difficult and expensive physically between FAIR countries all efforts should be made to enhance it otherwise.

Other Challenges

The other major challenges which FAIR faces include Brain Drain from one country to another and from Asian - African countries to the North. It is important to enhance training and development programmes than just to mourn about the problem. This is besides the standard motivational programmes and benefit schemes to attract and retain skilled staff.

There is also the effects of HIV/AIDS which we should manage by strengthening preventative and alleviation schemes. Wars and political instability in some of our countries and regions will create a serious challenge to securing retrocession and its costs will remain high. There is also an inherent problem of business drain from FAIR countries to the North, mainly in the form of selection - cherry picking where quality business is externalized.

Development Role Insurance

Insurance will continue to be an essential tool for national and regional socio-economic development. Insurers must play their role as partners in the improvement of the quality of lives in the communities in which they operate. Insurance Companies need to extend their services to the rural communities and mount education campaigns focusing on the need for the rural people to insure their lives and properties. The industry must develop products that are tailored to meet the unique needs of the rural communities. Insurance should divest its investments to cater for broad based development of the country including infrastructure and rural areas as long as there are good returns. Insurance premiums should not just flow to urban centres without matching investments in other areas. FAIR will have achieved its developmental objective when the insurance and reinsurance institutions in the respective markets, and through cooperation with each other, provide those products and services needed to develop Africa and Asia especially poverty eradication, economic growth and social stability.

Distinguished Guest of Honour, Guests, Delegates, Ladies and Gentlemen. As I handover the Presidency of FAIR, allow me to appeal to FAIR members to rejuvenate FAIR and take full stock of what it stands for, the original aspirations, its achievements and to say what has been achieved. The challenges that led to the establishment are greater now than in 1964. Encourage other institutions to join FAIR as full or correspondent members. Appeal to FAIR members to be part of the FAIR Brokers and Consultants Society (FBCS) and FAIR Life Insurance Professional Group (FLIPG). Be members of FAIR Aviation Pool, FAIR Reinsurance Pool and FAIR Oil and Energy Pool, and use the capacity they provide in the placement of Treaty and Facultative business. Contribute to FAIR Information Centre by submitting company reports, newsletters and any other publications to FAIR headquarters.

Ladies and gentlemen, FAIR should continue with the spirit of cooperation for the mutual benefit of our organization, as cooperation and sharing of resources at the regional level will take companies in the two continents to greater heights of performance. In all this, FAIR members should learn and master what it takes to promote and protect their interest without annoying others.

Concluding Remarks

I feel humbled and satisfied that FAIR, during my tenure of office as President of the Organization, continued to be instrumental in promoting cooperation among the insurance and reinsurance fraternity in Africa and Asia. I believe that further successes will be achieved by FAIR under the leadership of the incoming President and that gains from the past will be consolidated. It is therefore with great confidence and pleasure that I am handing over the Presidency of FAIR to a Brother and Colleague - Mr. R. K. Joshi.

Effect of Liberalisation on Indian Insurance Market – An Overview

- A.K.Shukla

"By providing financial protection against the major 18th and 19th century risk of dying too soon, life insurance became the biggest financial industry of that century…..

Providing financial protection against the new risk of not dying soon enough may well become the next century's major and most profitable financial industry"

Peter Drucker
"Innovate or die" in the Economist
25th September, 1999

Unlike the whole World :

a. India happens to be first country in the World to launch an independent regulator exclusively for Pension Sector.

b. Move over baby-boomers, Zippies have arrived. The World's youngest nation has 54 per cent of her people below 25 years of age.

The Indian scenario is quite different from the whole world on many other counts too. Let's get them right.

This country of magic rope climbing still retains its element of mysticism for any policy maker and public policy determinator to take a second look at the fresh as flower working population. This population (15-59 age bracket) was 55.6 per cent in 1991. It grew up to 59 per cent in 2001 and projections are 62 in 2006 and peaking at 63.4 in 2011 (about 747 million Indians). But if one wants to flesh out key information from this demographic statistics, you need an extra course of Indian curry from the Goldman Sachs BRIC **(Brazil, Russia, India, China) Report.** Here are some key points :

- Over the next 50 years, Brazil, Russia, India and China - The BRICs economies could become a much larger force in the World economy.
- If things go right, in less than 40 years, the BRICs economies together could be larger than the G6 in US dollar terms. By 2025 they could account for one half the size of G6. Currently they are less than 15 per cent.
- About two - thirds of the increase in US dollar GDP from the BRICs should come from higher real growth, with the balance through currency appreciation.
- While growth in the G6, Brazil, Russia & China is expected to slow significantly over the next 50 years, India's growth rate remains above 5 % throughout the period. India's GDP outstrips that of Japan by 2032. With the only population out of the BRICs that continues to grow throughout the next year, India has the potential to raise its US dollar income per capita in 2050 to 35 times current levels.

The euphoria is well earned as we look at the economic measures of liberalization initiated in Insurance sector. Six years into competitive market, the Indian insurance industry has exhibited a healthy growth trend of new business and market share. From total premium underwritten of Rs. 34,898 Crore in the year 2000-01 to Rs. 66,287.93 Crore in 2003-04, followed by an aggressive achievement posted at Rs. 81,301.40 Crore in 2004-05, the life insurance industry has seen the new players stabilize their operations keenly matched by LIC and the premium numbers bring out the fact that the size of the insurance market has grown over the six years of liberalization.

But, in the economics of power, size (by various definitions) does matter. Today, if one looks at the share of World GDP at Purchasing Power Parity, standing tall at fourth (with 5.7%) India is being looked up as a place of potential. India is about half the size of Chinese economy and China is still half of the U.S.economy. Between the Dragon and the Elephant, insurance penetration still does not reflect the economic size of our country. The catch-up potential is tremendous even if we are looking at the worldwide average. Insurance premiums as a percentage of GDP are only 2.9% in India, far below the worldwide average of 8.1%. With liberalization, India is penning the script of Insurance Convergence (catch-up) and not Insurance divergence (falling behind).

So, what is the star cast for the challenges ahead?

Create additional markets by enhancing the level of risk awareness

Since opening of insurance industry, as at 2003-04, private players have brought 21.87% of their new business through referrals and direct business, a sure sign of harnessing the strengths of the captive market of the respective organization. It clearly indicates the comfort zone of operation of the players. But the real operational efficiency will emerge beyond the boundaries of comfort when they will try to expand the market share in the unfamiliar territory. As globalization is starting to treat the whole World as "ONE", insurance companies across the globe are looking at growth opportunities and risk diversification and we will be part of it.

Insurance business runs in numbers. It is imperative for all the players to look for new market in years to come, a very healthy sign in our industry.

New products to take care of unattended or inadequately addressed risk exposures

All of us have the objective of introducing new products according to the needs of the customer. As of now, the trend has been like an architect building his own house first. To ensure growth based on our strengths, most of the players have encashed the alternate channels of selling i.e., bancassurance. The key product has been ULIP which showed itself in single premium policies where in Private players have posted 3 digit growths in the last 3 years. But the point to be borne in mind is that ULIP serves only the short term goals of the customers and that to a minisection of consuming class. We require aggressive product placement to cater to the long term needs of the customer. It is believed that the market has enough to offer, enough desire to consume as the consumer is ready and waiting to be served. But this offers challenges as consumers generally have high benefit expectations but modest prices. This means real innovation will be rewarded and marketing hype may get ignored. India is growing young, hence, challenge will be in surmounting to keep the Brand relevant as well as trendy.

Parallel thoughts take us to the notable views of personalities like Prof. C.K. Prahlad and Sri. N. Vittal who have expressed their views on Social obligations. They have voiced, "If 26% of our population are below the poverty line, can they themselves become a new market ?!!" IRDA as a regulator wants that the 5% of business of the companies should come from the rural areas in the first year which should go upto 15% as the business matures. In addition, taking its developmental role the IRDA has floated a concept paper on micro insurance and I believe that all of us can take the responsibility to the higher ground in days to come. LIC has been working on it quite actively.

A more pragmatic approach towards health insurance (by both the Insurer and the Regulator)

Health insurance as such has been a non-starter since the opening up of industry. Most of us have introduced health-wise benefits in the form of riders in the policy but a lot of ground has to be covered in making the field business worthy. Absence of regulations to regulate health services, condition of health services, awareness even about hygiende, non-availability of health and health service related data, lack of experience in the field of health insurance, underwriting and product pricing are a few issues which are to be addressed to ensure a healthy beginning of health insurance. The IRDA is likely to soon come out with a white paper on the health insurance and its promulgation. Special educational tools and awareness programs assume greater importance as all concerned need to be made aware of these issues.

Furthering market reforms vis-à-vis insurance industry

Life insurance industry, by its very nature is capital intensive. As of now none of the new insurers have been able to generate surplus on their Revenue Account. Further, majority of them have injected Capital to bridge deficits but in the long run these companies taking into account market opportunities coupled with present low penetration will become self sustainable. Government is keenly examining the upward revision of limit of foreign players but besides that option, private sector will have to give a renewed thrust towards mobilizing the revenue through long term plans of insurance selling. In business, more so in sales, things happen only with pressure of course without compromising ethics. Perhaps, IRDA may have to keep the tab on, keeping the option of upward revision of limit as later option of conscious choice.

Pension reforms and the role of players in it

Mere look at the demography and consumer psychographics of our country complemented with increasing longevity makes all of us excited about the tremendous potential waiting to be tapped in the pension market. Across the globe, all the insurance companies are fixated on only one line of product named "Defined contribution". There seems to be a dearth of ideas on product innovation on this front. Even now the temptation of erstwhile products based on defined benefit is so huge that many companies in foreign soil are reverting to demiguarantee of minimum annuity if contribution does not match up to the expected level.

On one side we have the risk of dying early, towards which most of the customers do not make a willing agreement. But when it comes to the risk of living long, each and every soul on this World strongly associates himself with it. The need is there, the risk is understood but it seems, potential products are yet to be developed.

The insurance industry as well as the research community has to join together and brainstorm on this front to take the Pension reforms towards the Woodstock of Indian annuity. There is an ancient dictum in Rig Veda.

- Let noble ideas come to us from every side.

Insurance, its selling and marketing is more like a dialogue now (thanks to liberalization) to provide long term solutions to the customer incorporating every feature he considers critical and valuable. Archimedes remarked, "**Give me a lever long enough and I shall move this world**". In LIC, our ideas are fast becoming habits that customers trust us for and I am sanguine that we are the long lever that will move this world. I hope all the other players in the market are ready to give us a run for our money in the Insurance market.

WE KNOW INDIA BETTER

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Weather Insurance and Derivatives in Developing Countries – An Alternative to Agricultural Insurance

- Dr. Surjeet Singh

Weather-related risks that affect commodity production can be as or more important than commodity price risks. Weather events are a pervasive and non-relenting source of problems for agricultural producers. While severe weather and weather events impact all countries, they more severely impact developing countries and their agricultural production. Farmers deal with weather risk in much the same way as price risk. They try to diversity their activities and also look for off-farm employment (Harwood, Heifner, Coble, Perry and Somwaru 1999). Farmers also undertake additional risk management practices such as irrigation and conservation tillage to protect soil and add moisture. These activities, however, do not efficiently manage risk. At times they are not sufficient to deal with the effects of shocks1. Farmers who can anticipate risk and be protected against risk have a greater ability to plan for the season. Thus they make more efficient farm management decisions. Managing weather risks will also benefit banks and other financial institutions whose borrowers are exposed to weather risk. Repayments tend to decline in the case of severe weather events. Bailouts in response to these events contribute to the "culture of non-repayment" with negative long-term implications. An efficient weather-based insurance system can provide protection to the institutions, which finance commodity production. The present paper looks at the weather derivatives, their origin, spread and their nexus with crop insurance. It also tries to comment on possible use of weather derivatives in developing countries as alternative to agriculture insurance.

1.0 There are **various ways the issue of risk has been taken care of.** The three important ones are put below.

1.1 Self-Insurance

Weather risks are covariant and typically affect entire regions simultaneously. In essence, when one farmer in a given region suffers from and adverse weather event, his neighbours suffer too. Many communities rely on self insurance to protect against weather, health and other risk. But this is ineffective against convariant risks, like wether. As a result, farmers on a community-wide, regional or national basis set up local insurance schemes. These schemes can be ineffective during a weather crisis because all farmers would need a payout at the same time.

1.2 Crop Insurance

Few insurance mechanisms deal with weather risk. Traditional, multi-peril crop insurance has not proven effective, particularly in the case of smallholders, and often excludes weather factors such as drought. Traditional crop insurance, common in developed countries, is typically heavily subsidised and is more appropriate for large commercial farmers. These traditional programmes rely on examination of individual farms and evaluation of yield. The costs go up substantially with on-site farm visits to evaluate the damage of a weather event. Besides, cost, this type of weather risk managements also suffers from moral hazard problems. Farmers will always know more about their actual yields and farm practices. Therefore farmers could influence farm data and output.

1.3 Index-Based Insurance

New approaches are needed for small and medium-sized farms to deal with weather risk in developing countries. Index-based crop insurance could offer some solutions:

* Use objective factors, which reduce the occurrence of moral hazard,
* Attempt to avoid the downfalls of traditional programmes,
* Deliver coverage at a lower cost.

How Index-based weather Insurance Works

Example: Rainfall - a co-related Risk

Is weather data available and usable?

Yes

No → Index based insurance not appropriate

Are changes in rainfall co-related to changes in yield?

Yes

No → Index based insurance not appropriate

Purchase insurance by electing

Trigger rainfall level and coverage level

By looking at a measurable risk that is co-related to yield rather than the yield itself, the impact of a weather event on a given region can be measured more objectively. Additionally, index-based weather insurance can be reinsured. This enables insurance companies to transfer this systematic risk efficiently into international markets. For example, if the production of a crop over time shows a good co-relation to weather variables recorded by meteorological stations in the local area, index-based weather insurance can be used to manage weather risk. After gathering the weather data, an index can be designed by: i) looking at how the weather variables have or have not influenced yield over time; ii) discussing key weather factors with experts such as agro-meteorologists and farmers; and/or iii) referring to crop models which use weather variables as inputs for yield estimates. A good index must account for the susceptibility of crops to weather factors during different stages of development, the biological and physiological characteristics of the crop and the properties of the soil. If a sufficient degree of co-relation is established between the weather index and yield, an agricultural producer can insure his production risk by purchasing a contract that pays in the case the specified weather event occurs (or does not occur). These weather based insurance instruments provide financial protection for the farmer based on the performance of the specified weather index in relation to a specified trigger and therefore they offer protection against uncertain revenues that result from weather related yield volatility. The less severe the level at which the trigger is set, the more expensive the insurance.

Weather-based insurance products do not require ongoing position management and thus are easier (compared to price risk management) to administer. Therefore the scope of institutions that could serve as intermediaries is broader and includes a great number of entities, most notably insurance companies.

2.0 Weather Derivatives - A Risk Management Tool

2.1 A Background

Weather has always been an unpredictable phenomenon whether it is temperature, rainfall, floods, cyclones, frost or snow. With weather patterns becoming more and more unpredictable and with the abnormal conditions experienced over the last two decades, many industries are affected by weather in a significant way (Geyser and Van der Venter 2001)[3]. In the agricultural industry, for example, businesses have long used futures contracts of agricultural commodities to hedge weather-related risks. However, today there is such a broad array of weather risks that traditional methods cannot cover them all. As a result, a more versatile financial instrument, namely weather derivatives[4], has emerged in recent years (Geyser 2002).

The weather market traces its roots to deregulation of the U.S. energy industry. Variability in weather conditions had always been recognised as one of the most significant factors affecting energy consumption. However, the effects of unpredictable seasonal weather patterns had previously been absorbed and managed within a regulated, monopoly environment. With deregulation, the various participants in the process of producing, marketing, and delivering energy to U.S. households and businesses were left to confront weather as a new and significant risk to their bottom line. Pioneers in this market have been energy traders Aquila, Enron, and Koch Industries who conceived of and executed the first weather derivative transactions in 1997 (Climetrix). The initial deals were all arranged as privately-negotiated over-the-counter transactions and were structured as protection against warmer or cooler than average weather in specific regions for the winter or summer seasons. At this time market participants saw weather derivatives as both a mechanism to hedge inherent weather exposure in their core energy assets and other energy commodity trading operations as well as a new risk management product to offer to regional utilities and other energy concerns alongside the array of structured products they were already providing.

2.2 The Basic Concept

A weather derivative is a contract between two parties that stipulates how payment will be exchanged between the parties, depending on certain meteorological conditions during the contract period. Weather derivatives are usually structured as swaps, futures and call or put options based on different underlying weather indices. Weather derivatives have one major difference from traditional derivatives. In contrast to traditional derivatives, there is no underlying traded instrument on which weather derivatives are based. Whereas equity, bonds or foreign exchange derivatives have their counterparts on the spot markets, weather is not traded as an underlying in a spot market. This means that unlike other derivatives, weather derivatives are not used to hedge the price of the underlying, as the weather itself cannot be priced. They are used rather as a proxy to hedge against other risks affected by weather conditions. For instance, the risk that consumption of heating oil will reduce due to higher than normal temperatures (Geyser and Van der Venter 2001). A generic weather derivative contract can be formulated by specifying the following seven parameters (see appendix 1 for details):

* Contract type (swap, call or put);
* Contract period (e.g., from November 1, 2004 to March 2005);
* An official weather station from which the meteorological record is obtained;
* Definition of the underlying weather index (W);
* Strike for put/call or exercise index for swap (both denominated S);
* Tick (k) for a linear payout scheme or the fixed payment (Po) for a binary payment scheme;
* Premium for the put or call.

2.3 Market Size and Demand

The market has grown rapidly since 1997. Expansion has occurred on a number of fronts. Some of them are discussed below.

2.3.1 Non-energy applications

Beyond the obvious initial applications of weather derivatives to hedging energy risk, the market has expanded to address a wide array of weather risks faced by numerous other industry sectors

Links between Weather and Financial Risk

Risk Holder	Weather Type	Risk
Energy Industry	Temperature	Lower sales during warm winters or cool Summers
Energy Consumers	-do-	Higher heating/cooling costs during cold winters and hot summers
Beverage Producers	-do-	Lower sales during cool summers
Building material companies	Temperature/snowfall	Lower sales severe winters (construction sites shut down)
Construction Co.	-do-	Delays in meeting schedules during periods of poor weather
Agriculture	-do-	Significant crop losses due to extreme Temperatures/ rainfall/floods

Source: climetrix (http://www.climetrix.com / weathermarket/marketoverview/default.asp).

2.3.2 New Participants

In diverse ways, the weather market represents a frontier of convergence between the insurance market and the broader financial markets. As the market grew, it quickly attracted involvement not just of other energy traders but also of insurers and reinsurers, investment banks, and hedge funds. Despite the fact that the insurance industry was accustomed to providing coverage for more catastrophic risks than the seasonal weather variations covered by the weather market, it found the weather market attractive for two reasons. First, there was a close similarity between weather derivatives and traditional "mother nature" insurance products covering property damage and business interruption. Second, there was a strong overlap between the skills needed to participate in the weather market and the insurance industry's core actuarial and risk management expertise. At the same time, investment banks and commercial banks saw weather derivatives as a financial risk management product that they could cross-sell along with other financial products for hedging interest rate or currency risks. Presently, some commodity traders and hedge funds see opportunities to trade weather on a speculative basis, or to take advantage of arbitrage opportunities relative to other energy or agriculture commodities. Today, all three sectors - energy trading, insurance, and the capital markets - are well represented in both trading and origination activities.

2.3.3 Product Diversification

To address the needs of non-energy end-users, and to advance the variety of weather risk management capabilities available to all market participants, the range of products available in the market has been greatly expanded via continued innovation. Weather transactions presently can be structured to cover almost any type of weather variable (temperature, rainfall, hurricanes, snow, wind speed, humidity, etc.), to have terms from as short as a week to as long as several years, and to have potential payouts ranging from a few tens of thousands of dollars for small risks to as much as $100 million or more for much larger exposures.

2.3.4 Global Development

The weather market has now expanded outside the U.S., both in terms of the types of risks being addressed and the nationalities of firms involved in the market. Countries in which weather transactions have been functional include the U.S., the U.K., Australia, France, Germany, Norway, Sweden, Mexico, South Africa and Japan. Although most trading in the weather market is still over-the-counter, standardised weather derivative contracts are now listed on the Chicago Mercantile Exchange (CME), the Intercontinental Exchange (ICE), and the London International Financial Futures and Options Exchange (LIFFE). Increasing trading volumes in these contracts is having positive impacts on market liquidity and price discovery.

A market survey6 in 2002 of 70 companies involved in the global weather risk management market included energy companies, brokers, investment banks and specialist weather derivative providers from the US, Europe and Japan reported that US share was 90%, Europe & UK 65%, Japan/Asia 2%, Australia 1% and emerging markets 1%. It can be seen that the US dominates the market. However, despite their rather small percentages, the markets in Europe, the United Kingdom, Japan and Asia should not be underestimated. According to market participants, growth when it comes will be significant and will occur at a rapid pace. This survey also showed that Heating Degree Days (HDD) contracts are by far the most prevalent at 60% followed by Colling Degree Days (CDD) at 34%, because of their use by energy companies, which are still the biggest participants in the weather derivatives market. The survey also showed which industries/ sectors show the biggest demand for weather derivatives products. The findings also illustrate the markets differing characteristics between geographical time zones (Douglas-Jones 2002a).

Demand for weather Derivatives Products

Demand by Industry Sector (1-highest demand, 5=lowest demand)

Region	Energy	Retail	Agriculture	Leisure	Pharmaceutical
US	1	3	2	4	5
Europe	1	4	2	3	5
Japan	3	1	5	2	4

In a survey focused on activity in the weather risk industry in 2002, Weather Risk Management

Associates found that the number of transactions transacted grew by 43% compared to 2001, with 3,937 weather transactions completed for a total notional value of over $4.3 billion dollars, a dollar increase of 72%. The recent departure of many energy firms from the market has been a catalyst in pushing out the weather derivative knowledge and skills base to other sectors. Trading teams have moved from the energy sector to the financial sector as banks realize the importance of a weather risk management capability. In addition, banks such as ABN Amro, Goldman Sachs, Deutsche Bank and insurance and re-insurance firms such as Swiss Re are starting to bring in a new more diversified client base (Douglas-Jones 2002b). The size of derivatives market the world over is US$294880 billion in 2004 that had stood at only US$26996 billion in 1995; a 11 times increase (table 1).

An impediment to expansion has been the lack of liquidity in secondary market trading. Most weather structures are specific to the needs and locations of end users, and thereby have narrow appeal to the broader market. Only those assets indexed to weather in big cities are likely to generate frequent secondary trades. Currently, as the market's notional size increases, the market is still left without the enhanced liquidity it indisputably needs (dischel 2002). Because the market is thinly traded, transactions are arranged by a narrow band of market makers and participation involves a limited number of counter parties. It is not uncommon for bid/offer spreads to be in the triple digits. This lack of liquidity, as evidenced by these sizable spreads, can make weather derivatives a costly and sometimes inefficient hedging mechanism (Williams 1999).

Table 1: Global Derivatives Market ($ billion, end year)

Year	Exchange traded	Over-the-counter (OTC)	Total
1995	9283	17713	26996
1996	10018	25453	35471
1997	12403	29035	41438
1998	13932	80318	94250
1999	13522	88202	101724
2000	14278	95199	109477
2001	23764	111178	134942
2002	23816	141665	165481
2003	36740	197167	233907
2004	46592	248288	294880

Source: Bank of International Settlements. (http://www.iii.org/financial2/securities/derivatives/

Weather is a major risk in agriculture. Whether it be sunshine hours, temperature, rainfall or wind, they can all affect the quality and quantity of a crop (Geyser 2002). The introduction of weather derivatives to the agricultural sector in particular has generated considerable interest among supranational organizations including the World Bank and International Finance Corporation (IFC). Farmers in most under-developed countries, in particular Africa where weather risk can be devastating, are not supported by government sponsored crop insurance programmes and weather derivatives could provide a way to protect them against the risk of a drought or a poor harvest. A large proportion of South America's economy for example, relates to growing commodities and selling them on the world markets. In Brazil and India, the coffee harvest could be adversely affected by bad weather conditions and ultimately have a major impact on the economy. Weather derivatives on the appropriate locations could bring added stability to Brazilian and Indian economy and ultimately to the World economy.

3.0 Distinction between weather Insurance and Derivatives

For insurance and reinsurance companies, weather risk is often a natural fit with a firms core business. They can underwrite weather risk in the same way as they have for years with catastrophe risk. Several re-insurance companies have entered the weather risk market. One of these is Swiss Re. By positioning itself in both the insurance and the financial markets, Swiss Re can offer customers weather deals either in derivative form or in insurance form (Cooper 2001). Weather derivatives will not totally replace insurance contracts since there are a number of significant differences. Some are listed below.

* Weather insurance is taken out to protect firms from low frequency, high impact weather events such as tornadoes, floods and weather related fires. Weather derivatives protect firms from higher frequency, lower impact events. For instance, a temperature drop/increase by a few degrees, a higher/lower amount of rainfall;
* With weather derivatives, the payout is designed to be in proportion to the

magnitude of the phenomena. Weather insurance pays a once-off lumpsum that may or may not be proportional and as such lacks flexibility;

* Insurance normally pays out if there has been proof of damage or loss. Weather derivatives require only that a predetermined index value has been passed; and
* Traditional weather insurance can be expensive and require a demonstration of loss. Weather derivatives are economical in comparison to insurance, require no demonstration of loss and provide protection from the uncertainty in normal weather.

3.1 Pricing of Weather Derivatives

3.1.1 Weather Forecasts

There are different ways to price weather derivatives. Before using any approach, it is important to the gain an intuitive understanding and make sure that the model used is accurately capturing reality. Financial contracts derived from weather-specific measures such as the expected future value of a local temperature, require the ability to predict regional weather conditions months into the future. Thus, an effective model of the variations of a given weather-specific measure over the course of many months is essential for the accurate pricing of a weather derivative (Garman, Blanco and Erickson 2000). As financial traders rely on economic forecasts for trading strategy input, weather traders rely on meteorological forecasts for input on expected temperatures. Understanding past weather patterns, including seasonal effects is an important part of long-range weather forecasting. Weather forecasts are short-term and in the weather derivatives markets should be used indecisions requiring a short-term horizon only. For longer-term weather derivatives, seasonal climate forecast are more appropriate[3]. Weather derivatives are classic examples of incomplete markets. The payoffs of these contingent claims are based on weather conditions at a specific site (e.g. London Heathrow airport) over a pre-specified period. Clearly, the underlying variable-weather- is not a tradable asset. Weather does not have a price.

3.1.2 Temperature Variability

It is an established fact that many weather variables, particularly temperature, show evidence of long-range temporal co-relations. Long-range dependence (or long-memory) arises from the presence of positive long-range co-relations, or persistence, within weather data. If an anomaly of a particular sign exists in the past, it is likely to persist in the future too Hence, persistence is the extent to which trends are reinforcing and firm. Persistence's incorporation into modelling weather dynamics is therefore important in achieving better estimates and bounds for natural weather and climate variability (Brody, Syroka and zervoc 2002). The most important decision to be made at the time of analyzing prior data used to price weather derivative is the choice of the "look back" period. This is the period of time in which to estimate average temperatures and volatilities. Common wisdom holds that 10-20 years of weather data may be required, and that accounting for trends and seasonality's is essentially de rigor (Garman, Blanco and Erickson 2000).

3.2 Pricing Approaches

One of the main areas of controversy in the weather derivatives markets is the choice of the pricing methodology to use in order to obtain the fair value of the different contracts. Due to the lack of widely accepted weather derivative pricing methodologies, counter parties do not always agree on the right price to trade. The popular models currently in use include Black-Scholes model, burn Analyses, Monte Carlo Based Simulations and Stachastic process (for details see appendix 2).

The lesson one learns from these models is that the weather derivatives market needs a standard pricing model so all participants can start communicating in a common language. At the moment, the major weather derivatives market makers have developed black-box models that they may not be willing to share with other participants. The large discrepancies between the different models used are preventing the market from developing at an even faster pace. Just as the Black-Scholes model for financial derivatives was one of the main driving factors of the option markets in the 1980s, the weather markets need a common denominator for today's markets.

In sum, the concept behind weather hedge is simple. It is a way to protect businesses from excessive costs or depressed demand due to unfavourable weather conditions. In this sense weather derivatives are an extension of traditional risk management tools such as options, futures and swaps. Until the advent of weather derivatives, exposure to the weather had been considered an inherent business risk in which only the risk to extreme weather events were hedged through the insurance market. As shareholders become increasingly aware of weather derivatives, firms will no longer be able to blame the weather for losses. Just as a firm can manage its currency exposure, so it can hedge its weather exposure. Add to the fact that over 70 percent of all companies suffer exposure from the weather and this is the beginning of a major global market.

4.0 Developing Countries and Weather Insurance

Reducing weather vulnerability in developing countries is becoming the most important challenge facing development in the present century. Natural catastrophes claim millions of lives and result in losses of unbound magnitude. The latest disaster in the form of Tsunami has been most devastating. Great losses are suffered on this count. Losses due to natural disasters are 20 times greater (as a percent of GDP) in developing countries than in industrial countries (Varangis 2001). Favourable weather events add strength to growth process in developing countries. At the other end, many have faced significant difficulties when the effects of unexpected and unfavourable weather events could not be protected against. The agricultural, the main stay of majority in these countries, is the prime example where people's earnings are extremely sensitive to weather. The revenues or costs are directly tied to seasonal weather conditions. Severe weather events, drought or flood, hail storms, cyclones or high winds can have a devastating impact on individual farmers and on the wider population that relies on dependable agricultural production. In recent years, the international community has come to realize that disaster vulnerability, including weather disasters, has everything to do with poverty and development, and vice versa. Measures taken to reduce the impact of weather disasters provide an effective vehicle to make substantial advances in the fight against poverty. Although there is no way of controlling the weather, a solution does exist to the financial effects that weather can have on the incomes of economic agents in developing economies.

In an earlier section we have seen that weather risk markets are amongst the newest and most dynamic markets for financial risk transfers and include participants from a broad range of economic sectors such as energy, insurance, banking, agriculture, leisure and entertainment. The weather risk market is still very much US-based. New participants from Europe, Asia, and Latin America also have entered the market recently. Weather risk markets are in advanced stage in the energy sector as discussed earlier. Their application to agriculture, a critical sector for most developing countries, are still limited. This is primarily because this type of market is relatively new. This market also has to compete with highly subsidized crop insurance schemes in developed countries. A notable application of weather markets in agriculture is in Canada (in Ontario and Alberta). Weather markets were used because of the close co-relation between cattle pasture and weather (rainfall). In case of developing countries, weather markets create new opportunities for dealing with two essential issues: (i) Ways to deal with catastrophic or disaster risks; (ii) To promote new private-based insurance products for sectors that are highly dependent on weather, such as agriculture (Varangis 2001).

4.1 Gains from Weather Markets

The traditional market-based instruments like insurance for managing weather risks are largely underdeveloped and unavailable in most parts of the world (Gibson and Zimmermann 1994). Given the growing interest in weather insurance markets, there are large unexploited opportunities for innovation in developing countries. A series of studies view markets better placed to provide weather insurance than traditional crop insurance in many developing countries (Gautum, Hazell and Alderman 1994; Sakurai and Reardon 1997; Skees, Hazell and Miranda 1999; Skees 2000). In most developing countries the farm sizes are very small and so the traditional crop insurance based on individual yields and field inspections are invariably very expensive to administer. There are also the usual problems of adverse selection and moral hazard attached. The incidence of these mostly is much higher in developing countries as individual farm information is scarce. The advantage of weather-based index insurance is that it covers covariate risk for contracting groups of economic agents through formal and informal risk-sharing arrangement. This is a potentially important innovation since instruments for systemic risk can complement the approaches for managing idiosyncratic risks found in many developing countries. These ideas have also been extended to the US where it is felt that cooperatives could purchase index insurance and become mutual insurers (Black, Hu and Barnett 1999; Skees 2001).

In simple terms, weather insurance is based on the occurrence of a weather event rather than on actual losses such as crop failure i.e. onus is shifted from crop failure to weather failure. It is assumed that certain weather events (rainfall above or below a specified amount) are highly co-related with crop losses and thus are income risks. Drought insurance is prime example. Insurance contracts would be written against severe rainfall shortfalls (e.g., 25% or more below the norm) that can be measured at a specific weather station/rain-gauge station. The insurance could be sold in standard units, say Rs. 100 or Rs. 1000. The best part is that all buyers pay the same premium and receive the same indemnity payment per unit of insurance. The key advantage to this kind of insurance is that the trigger events (e.g. rainfall shortages) can be independently verified. In this sense, it is not subject to the possibilities of manipulation, which is the case with traditional insurance payouts that are linked to actual farm losses. Moreover as the contracts and indemnity payments are the same for all buyers per unit of insurance, the usual problems of moral hazard and adverse selection associated with traditional crop insurance are narrowed. Besides, this insurance is relatively inexpensive to administer because individual contracts are not written. There are no on-farm inspections and no individual loss assessments undertaken. The clientele of this insurance could be broad based, including agricultural traders, agro-processors, shopkeepers and landless workers whose incomes are also affected by the insured weather events, due its affordability. This type of insurance is relatively easy to market. It can be sold through banks, post offices, farm cooperatives, input suppliers and micro-finance organizations, and directly to farmers itself. Weather insurance is not only for producers and rural people. Banks and rural finance institutions could also purchase such insurance to protect their portfolios against defaults caused by severe weather events. Input suppliers could also buy such insurance. It can counter negative implications of economic and social development (Hess, Richter and Stoppa 2005). Once financial institutions can offset the risk with this type of index insurance contracts, they may be in better position to expand credit at perhaps improved terms. This is a critical issue for many developing countries as credit availability to agriculture is constrained, partly because of weather risks. Finding solutions to protect borrowers against adverse weather events could contribute to improving credit markets in developing countries (Skees 1999). In drought situations, livestock becomes vulnerable (say Rajasthan in India or most African countries) and weather markets can be very useful (Skees 2001). In water scare regions rainfall contracts could be used to shift water availability risk to broader financial markets, thereby enhancing the operation of markets for water rights (Skees and Zeuli 1999). Above all, weather markets can play an important role in agriculture to meet the challenges from society to reduce pollution and improve resource use (Skees and Barnett 1999; Skees and Zeuli 1999).

4.2 Problems with Weather Markets

Despite the advantages of weather risk management, it is quite difficult to use weather risk management to developing countries. There are host of reasons for it (Gibson and Zimmermann 1994; Varangis 2001; Stoppa and Hess 2003; Hess, Richter and Stoppa 2005).

(i) It is necessary that reliable and verifiable data are available on weather patterns. There are two aspects to this. One, a reliable historical data covering a period of at least 30 to 40 years (daily observations) is required. The availability and cost for obtaining such data may be the central issue in most developing countries. Two, tamper-proof weather stations are must for ensuring reliable readings on insured events[7]. Readings can be verified by comparing with adjacent stations or with remote sensing data taken from satellite images. Satellite instruments could provide estimates of rainfall. In the longer run, these instruments could become the main means of providing rainfall measurements for insured areas. As of today, a key constraint with satellite measurements of rainfall is that there is little history compared to conventional measurements.

(ii) Rainfall can vary spatially. For instance, the weather station on which a rainfall contract is written may possibly have sufficient rain registered, but a farmer's nearby field may not receive sufficient rainfall. This could prevent the farmer from collecting insurance. Also, it is vital to determine the co-relation of rainfall measurements within a given region. In other words, how representative of the region is the measurement of rainfall in a certain weather station? Low co-relation indicates high rainfall basis risk. The basis risk has an analogy with the price hedging where local prices may differ from the price observed in, say, futures exchange market. This however can be addressed by averaging measurements over a longer period of time (monthly or even quarterly) and over a larger region. Low spatial co-relation may be more of a problem for individual farmers but less so for producer associations, financial institutions, and agro-industries, because they operate over a much broader geographical region(s). Whether the basis risk overwhelms the considerable benefits of weather insurance is an empirical question that depends largely upon the spatial co-relations of rainfall events over time. We can have a situation where in areas with microclimates, the spatial co-rrelation may be too weak and the basis risk too high.

(iii) In dealing with severe weather events it may be difficult to find someone with in offsetting exposure that is who would benefit if droughts or floods occur. The cost efficiency of derivatives markets increases by bringing together parties with opposite exposures.

(iv) The actuarial soundness of the insurance could be undermined by weather cycles that change the probability of the insured events. It may become essential to adjust the cost of the insurance whenever a specific weather event is confirmed. However, this would require sufficient lead-time between knowledge of the pending event and the time of selling insurance. In all probability, this should happen only when the occurrence of an event amounts to a shift in the weather patterns rather than a movement along the existing distribution of weather patterns. This could happen when rainfall levels have a negative trend and droughts occur with more frequency over time.

(v) Insurance regulations as they exist in most developing countries do not envisage the use of weather derivatives as insurance instruments. So as a first step it is a prerequisite to enact changes in these regulations that would allow the use of financial insurance instruments, including weather derivatives, in addition to traditional insurance.

(vi) The systemic nature of weather risk is required to be addressed. If a severe weather event, such as a drought or a flood, does occur, all those covered by the policies have to be compensated at the same time. This can pose an intolerable level of risk exposure for the local insurance provider. This would require international linkages i.e., mechanisms to spread financial risks internationally (obtain international reinsurance). These markets work, but the insurance companies involved have limited capacity to absorb large amounts of covariate risks as opposed to independent risk such as car accidents, heart attacks, etc. The new developments in financial markets like weather derivatives, catastrophe or "cat" bonds-bonds whose coupon and principle payments depend on the performance of an index or pool of natural catastrophe risk, do offer new opportunities to pool large volumes of covariate risks on a global scale (Skees 1999)[8].

5.0 The Case Studies

Given the above discussion, let us look at few case countries where weather index based insurance in agriculture sector has been applied. Mexican and Moroccan are the two most referred instances of successful interventions. South Africa and India are being observed lately.

5.1 Mexican case

Mexico has two institutional innovations that could be combined with well-crafted weather-based index risk management products. Not only could such indices be developed to offer insurance to the rural people, but the same indices can be crafted to allow improvised governments opportunities to hedge budgetary exposure when they provide free disaster aid (varangis 2001).

The Mexican government set-up a Fund of Natural Disasters (FONDEN) for post-disaster financing for reconstruction of public infrastructure, and compensation to low-income producers for crop and livestock losses arising from natural disasters in 1996. FONDEN is targeted fund and disbursements per beneficiary are set to limits. It does not compete with private insurance. FONDEN comes into play only when drought, frost or other weather perils affect most people in a region. FONDEN pays out against systemic risks only. More recently, it has started to adopt objective rules for declaring catastrophic events[9]. The parametric rules for triggering payments removes an ad hoc dimension in the declaration of catastrophes and reduces the political interference in its operations. The government of Mexico has been toying with feasibility of obtaining financial re-insurance for FONDEN to cover its, exposure from weather risks affecting the agricultural sector.

Skees, Varangis and Larson (2001) examined the development of weather contracts based on rainfall to insure against drought in four Mexican states viz., Durango, Jalisco, Tamaulipas and Zacatecas. The feasibility study had two main components. First, it examined the co-relation between rainfall and yields to determine the loss due to lack of rain. Second, it designed a prototype rainfall contract and examined how this contract affects the variance of revenues from these crops. The study finds that weather contracts are feasible in about 40% of the planted area in these four states where the co-relation between rainfall and yields is around 60-80%. Also, rainfall contracts could reduce the relatively risk by up to 30%. These findings suggest that rainfall contracts have potential in Mexico.

5.2 Moroccan Case

Morocco has made efforts to develop insurance programmes related to weather events. Drought is (vox populi) the main risk for Moroccan agriculture. It, at times, becomes the single most important case of crop failure. So both the public sector and the insurance industry for quite sometime has been focusing on developing appropriate safety nets to protect farmers from its dangerous effects. In 1995 the Moroccan government, in partnership with the insurance industry, activated the "Programme Secheresse" (drought plan). There is no direct reference to drought in the revised scheme of 1999. It is in fact a yield insurance programme. The only connection to the weather event being the ministerial declaration that officially declares the existence of a drought period and allows the insurance company to activate the indemnification procedure. The 1999 scheme was structured on the coverage of three revenue levels of 1000, 2000 and 3000 Moroccan Dirhams (MAD) per hectare. For he first revenue threshold the payout is based on an area-yield base mechanism, while for the 2000 and the 3000 MAD/hectare level, specific farm yield assessment are required (Stoppa and Hess 2003). The programme was very successful as in 2002 the subscription reached 80% of 300000 authorized hectares, but was laden with few problems (Skees, Gober, Varangis, Lestr and Kalavakonda 2001).

The World Bank in 2001, in order to evaluate the possibility of developing an insurance programme[4] directly related to weather events helped the Moroccan government to launch an on-field international research project. After an accurate analysis of the productive environment in agriculture as well as rainfall patterns and agricultural yields, it was concluded that Moroccan agriculture could significantly benefit from a rainfall insurance programme. A pilot area-based rainfall insurance scheme was recommended the adoption (Skees 2001). The programme recommended is a rainfall insurance programme for crops, especially cereals and sunflower. It indemnifies producers if rainfall levels fall below a specified threshold.

Rainfall is measured at the synoptic stations of the National Meteorological Service (Direction de la Meteorologie Nationale, DMN). Rainfall information is accessible in real time to all parties involved in the transaction. To help the local insurance industry design the practical details of the programme and facilitate access to international weather risk management markets, the International Financial Corporation (IFC) with the help of Italian Government, sponsored a project to help structure the weather contracts. A company was set up that would launch and manage such products (Bryla, Dana, Hess and Varangis 2004).

The structure of the rainfall insurance programme was developed in analogy to a European put option where the option price is the cost of the coverage and the strike is the rainfall threshold below which an indemnity is triggered. The idea underlying such types of contracts is that, once the existence of a sufficient degree of co-rrelation between rainfall and yield is established an agricultural producer can hedge his production risk by entering into a contract under which payments would be made if rainfall levels fall below the selected strike. In order to structure the contract, the issues to evaluate are therefore how to determine the strike and at what level to set it. In the case of cereal and sunflower production in Morocco, the adopted procedure for developing rainfall insurance contracts was: (i) production and rainfall data were collected and organized; (ii) the most appropriate rainfall period was selected estimating co-relations between yields and different rainfall periods; (iii) specific rainfall indexes were constructed assigning "weights" to different rainfall periods in order to maximize co-relation between yield and rainfall; and (iv) different payment schemes were analysed and evaluated. The ultimate condition for the success of the programme is the price at which the coverage can be provided. The market will decide it (see for details Stoppa and Hess 2003).

5.3 South African Case

South Africa is another country where traders have begun paying close attention to the market. Demand for weather hedging products comes predominantly from the agricultural sector as it is not subsidized and because the energy sector currently remains regulated. Gensec's deal in February 2002 with Aquila, a subsidiary of the listed Kansas City based company Utili Corp United, was the first weather derivatives deal in the South African market. The deal was structured to provide ZZ2 ceres, one of South Africa's largest producers of deciduous fruit and vegetables, protection against early spring frost. It is one example of how weather derivatives can be utilized by the country's agricultural sector. The transaction saw ZZ2 being paid for days when the temperature was equal to or below 0 degrees celcius during the crucial budding phase (Douglas-Jones 2002b). Since the Gensec deal in 2002, there has been a positive response to the products from a number of industries, particularly wheat and maize growers, silo owners, transport companies in the sugar industry, fishing as well as insurance companies (Bolin 2002).

5.4 Indian case

The first weather insurance pilot in India was set in July 2003 (monsoon-based weather insurance) in Andhra Pradesh state by Mahindra Shubhlabh, ICICI Bank, ICICI Lombard and Basix. Basix launched this weather insurance programme through its local area bank KSB (Krishna Bhima Samruddhi Local Area Bank) in Maboobnagar. Local area banks are limited to operations in three adjacent districts and therefore face limited natural portfolio diversification, which helped to convince KSB that weather insurance contracts for its borrowers could mitigate the natural default risk inherent in lending in drought prone areas such as Maboobnagar, at the extreme Eastern end of AP, bordering Karnataka. The district has experienced three consecutive droughts during 2000-2003.

KSB bought a bulk insurance policy from ICICI Lombard and sold around 300 individual farmer policies for three categories of groundnut and castor farmers, small, medium and large 10. Premium rates are Rs. 456 for the small farmers with a liability of Rs. 14250, medium farmers pay Rs. 600 with a maximum liability of Rs. 20000 and large farmers pay Rs. 900 for a liability of Rs. 20000. At the pilot stage KSB decided to limit liability per farmer rather than imposing per acre limits in order to manage overall liability. KSB sought to sell policies to up to 300 farmers for each of the two-targeted crops during the pilot stage. Farmers uptake was immediate, with around 100 farmers signing up on very first day. KSB and ICICI Lombard opted for a weighted and capped rainfall index, which means that the maximum rainfall counted per sub-period is limited to 200m and more critical periods for the plant growth are more heavily weighted than others. Informal interviews with 15 contracted farmers revealed that they were well aware of the rainfall based index nature of the contracts and the associated basis risk (Hess 2003). They also understand the two-step payout structure of the policy and the fact that the liability limit is a theoretical number and historical maximum payouts are around 3025 and would have occurred in 2002 and 1997. Thus, the premium rate at that level was around 15%. Nevertheless, the farmers appear to value the quick payout of the weather policy, which distinguishes it from the federal crop insurance policy in India. However, farmers preferred claim calculation based on absolute shortfall in millimetres rather than in percentiles (Sinha 2004). They also had problem with the rain gauge station which was located at a district headquarter. They also preferred a simple linear relationship between the rainfall and the claim amount. They were unable to appreciate the trigger points and different slab rates. Farmers like to have phase-wise payouts subject to the maximum limits. KSB decided that only borrowing farmers could buy weather insurance policies. Eventually KSB contemplates to lower the interest rate for these farmers due to the reduced default risk. Basix/KSB has also designed policies for Soya farmers in MP, Ujjain and UP, A1igarh. One of the top 5 reinsurers in the world has agreed to reinsure this entire weather insurance portfolio.

The groundnut rainfall contract for Mahboobnagar is clearly associated with an insurable loss. This has been achieved through the weights used in the construction of the rainfall index and the relationship between the payoffs and the level of the index. The weights have been chosen to maximize the co-relation between the rainfall index and groundnut yield in the region. The payoff pattern is supposed to capture the increasing severity of losses with progressive rainfall deficiency. These features tend to increase the complexity of the product and make it difficult for the farmers to understand (Sinha 2004). However, if the weights were removed and the payoff made linear the product would become closer to a derivative. Reinsurance would also be more easily available for this product since solely the rainfall, independent of the area crop yield, determines the payoff.

The AIC also introduced Varsha Bhima as pilot project in about 25 rain gauge stations across four states during kharif 2004 seasons (summer). The product included insurance based on seasonal rainfall, sowing failure, rainfall distribution in index, agronomic optimum index and catastrophe cover. The scheme has been withdrawn after its maiden trail.

6.0 Final Remarks

Given the above discourse, weather markets can provide new opportunities for developing countries in dealing with weather risks whether for catastrophic or more frequent weather events. Policy makers could use these markets to design effective weather disaster assistance programmes and support the development of private markets within their countries. A critical element for encouraging the use of weather risk markets in developing countries is for governments to provide access to their meteorological data and make the necessary investments in their weather stations in order to ensure accurate and tamper-proof measurements. International weather trading companies stand to benefit from including developing countries into their activities because they achieve diversification of the weather risks they cover on a global level (Skees, Hazell and Marinda 1999). This may contribute to reducing the overall risk of their weather portfolio and reduce the overall costs of covering weather risks. Finally, understanding and modelling the relationship between economic losses and weather events will be critical in designing tailored weather products that meet the requirements for various agricultural users (Skees 2001). Developing countries have a long way to go before real weather markets are developed and put in place. The pre-conditions are many to fulfil before the nail is put in the wood.

Terrorism - Challenges for Insurance Industry

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Changing Nature of Terrorism Risk World - wide and its impact on Insurance Industry

"Indeed, had a nuclear device been available to the terrorist, September 11 loss could have bankrupted most of the industry, Berkshire very much included.
Given that kind of borrendous, but not impossible, nuclar scenario, insured losses could have been $ 1 trillion, an amount that exceeds the net worth of all property-casualty insurers worldwide."

- Warren Buffett
November 19, 2001 in an editorial appearing in the Washington Post.

"Another terrorist attack of a magnitude similar to that of September 11 would seriously destabilize the global non-life insurance industry and could push a significant number of insurers into insolvency. Larger attacks could wipe out larger numbers of insurers all together."

- Hartwig, Etudes

The changing nature of international terrorism risk over the last decade is characterized not only by its transactional scope but also by completely new loss dimension. The 9/11 and other recent terrorist attacks did make insurers & reinsurers realize that they had grossly underestimated exposure of their risk portfolio to terrorism. It is generally felt that conventional insurance & reinsurance markets do not have adequate depth & capacity to respond to the new challenges for various reasons.

Is Terrorism an Insurable Risk-Yet?

Faced with heavy financial implications, unprecedented magnitude and complexity of new forms of terrorism in the recent past, most insurance & reinsurance markets have raised doubts about insurability of terrorism risk.

To be able to fully grasp and capture the full scope of issues concerning insurability of terrorism risk and let us revisit the four cardinal technical principles which have been enabling us to determine t he insurability of conventional risks. These are:-

1. Accessibility - The probability & severity of loss must be quantifiable.
2. Randomness - Must be unpredictable & independent of the will of the insured.
3. Mutuality - Must have a large group within which the risk can be shared & diversified, who share the same exposure and perception about the risk & its cost.
4. Economic feasibility - Insurers must be able to charge adequate premium commensurate with the risk so as to ensure required capital support.

It is widely recognized now that terrorism risk entailing consequences of catastrophic proportions does not readily meet all of the criteria for its insurability as stated above. The risk in fact share the features of risks generally categorized as LPHC (Low probability, high consequences) events. These risks have wide variation in loss distribution and is a great impediment in insurers, ability to predict the severity & frequency of future events making pricing difficult, if not impossible. Yet another financial challenge to compensate for such events is the insurers ability to raise very large financial resources at a very short notice. The considerable magnitude of potential losses is to be assessed against available capacity of insurance market to meet such losses. The inherent danger in providing insurance for catastrophe covers like terrorism without access to necessary amount of capital is that risk carrier may run into `risk of ruin' and thereby frustrating the very purpose of insurance. In such a scenario, Insurance Companies tend to avoid the risk by withdrawing from the market as witnessed after 9/11 incident.

There have always been several impediments in providing covers for conventional catastrophe risks like earthquake and natural disasters like flood, hurricane & Typhoon these relate to co-relation of potential risks, risk accumulation, co-relation between different lines of insurance cover, impact such losses have not only on the liability side but also on the asset side of their balance sheet.

In addition to these general problems, there are several specific features which make terrorism fundamentally different from other types of catastrophes risks. They can be briefly summarized as under:-

1. Man - made events and hence historical data not relevant unlike natural events.
2. Dynamic uncertainty making it impossible for insurers to identify hard & soft targets.
3. Unavailability on risks incurred as the most informed party, the Govt. keeps it confidential & secret.
4. State - Sponsored / or state funded & akin to proxy - war.

Insurance of Terrorism Risk in Indian Market - The Past and the Present

Until 2001, Indian & most other markets routinely covered most terrorism risk under fire policies. The exposures were considered manageable and no separate pricing or understanding was considered necessary. The Polices also did not provide any precise definition of what constitutes a terrorist event. In fact, following 9/11, there was, for some time a debate whether terrorist attack could be construed as an 'act of war' enabling insurers to rely on the relevant exclusion in the Policy. The issue was quickly settled but in view of general fear and high exposurers, reinsurers decided to exclude this risk as uninsurable. In India, the market continued to offer limited covers against terrorism risk but decided to put a small price for it.

The Global Face of Terrorism Insurance

Worldwide, many initiatives have been taken to broaden terrorism insurance supply and redefine insurability the emerging trends are:

1. Capacity building - New terrorism Insurance capacity has emerged since 2001, as the market wanted to take advantage of increased requirement and hardening of price.
2. New financial market instruments - Capital markets offer broadly two alternative risk management solutions:-
   a. Alternative risk financing, and
   b. Alternative risk transfer instruments.

While (a) generally aims at securing availability of funding in case of a disaster loss (b) entails shift of all or part of the financial burden. The second alternative is thus more akin to conventional insurance contracts. However, towards an integrated risk management strategy, both can be jointly used to optimize the benefits.

Recourse Discussed

We must, however, reckon here that we still have a long way to go in developing reliable financial market tools; it would be difficult to develop sustainable risk-linked securities market, more so owing to high level of uncertainty & ambiguity that affects modern day terrorism risk. As long as reinsurers themselves, with their long experience in the coverage of large catastrophic risks prove reluctant to cover large terrorism risk exposures due to difficulty in quantifying and pricing such risks, the ART solutions to terrorism risk is likely to remain low. Before we attempt to identify & debate various policy options to cover unpredictable terrorism risk, a few issues must be settled. These are:-

1. Definition of terrorist acts
2. Which lines of insurance business & perils may need to be covered?
3. Should terrorism risks cover become mandatory, particularly where insurance penetration is low?
4. Should terrorism cover be granted on stand alone basis?

For long there has been controversy regarding general definition of terrorism and no consensual definition has emerged at the international level. Many countries rely on definition given in the criminal law or specific act, if any pertaining to terrorist actions. The elements in most of the definition are common. ***Annexure A*** gives definition used by some markets and ***Annexure A-1*** but from the writers point of view, the definition used by Swiss Re offers a practical and acceptable solution to divergent views. The definition used by Swiss Re is -

"Terrorism means an act or threat of violence or an act harmful to human life, tangible or intangible property or infrastructure with the intention or effect to influence any government or to put to the public or any segment of the public in fear."

This definition is preferred over others as it does not get involved in the motives which are sometimes difficult to fathom the terrorist act.

There is general consensus that terrorism risk should confine its self to Property, Liability & Casualty Risks only and Aviation, Marine & Nuclear or CBNR risks must be addressed separately.

In countries including India where insurance penetration is still very low, it is considered desirable to make terrorism risk coverage mandatory to be included in all policies covering property risks. This would greatly expand the risk community and spread the risk very widely. It would also enable insurers to charge affordable low rate of premium. The approach akin to what is being followed in most markets for covering earthquake risk mandatory as a part of property insurance.

In view of what is stated above it appears pointless to offer stand alone alone cover for terrorism as the cost and administrative hassles involved outweigh any advantage that stand alone cover way offer.

What then are the options available?

Since modern terrorism can have a potentially crippling impact on the social & economic activities of a country, it is critical to assure business & social continuity through an effective terrorism risk management & compensation system. We have already witnessed that ability of the private insurance & reinsurance markets to price and absorb alone large scale terrorism risk is extremely limited. In all such markets, which lack capacity, indirect & direct Govt. intervention appears desirable as a means of increasing terrorism insurance availability & to support private market operations. For this purpose, the policy tools available are -

A. Government Backup

Most of the economies in the world have created permanent Govt. backed Mechanism. The following are the illustrative examples :

1. **Fiscal -** In Germany, the building of reserves for terrorism risk coverage has been exempted from corporate income taxes.
2. **Accounting measures -** In USA, a proposal has been under consideration to change US Tax Laws & Accounting Standards to allow insurers to set aside funds on tax deductible basis to establish reserves for potential future terrorist attacks.

B. ***Direct Govt. participation -*** This can vary from the Govt. acting as **primary insurer, reinsurer of last resort** and finally as **lender of last resort**. The choice of solution will depend upon several considerations, the most important being the capacity & depth of market. Moreover, these solutions are not exclusive and an ideal option may be a combination of more than one depending on the specifities of the market.

It is important to note here that Govt. intervention in the management of terrorism risk may also be in the form of post ante V ex ante solutions. The former is often motivated by the wish to enforce a certain degree of redistributive justice whilst the later is aimed at providing rapid allocation of resources to meet terror related losses.

Indian Markets response to the problem - Formation of Indian Terrorism Risk Insurance Pool

1. An overview of Indian Market's response to the coverage of Terrorism Risk may be of interest to all the delegates present here.

2. Following the withdrawal of the cover for the risk of terrorism and sabotage by the international reinsurers after the September 11, 2001 events in the US, private non life insurance companies licensed to operate in India have pooled their resources to establish a Terrorism Risk Insurance Pool starting from April 1, 2002.

3. The Terrorism Risk Insurance Pool, fully reinsures all terrorism risks underwritten by the primary companies participating in the venture Excess of loss Retrocessional Coverage is then purchased on the international market. The General Insurance Corporation of India (GIC), on behalf of all the non life insurance companies manages this pool including maintenance of accounts, investment of funds, etc. For this purpose a handling fee of 1% of the premium on the cessions is recovered from the participants. The cover is available only in respect of fire, engineering and fire/ engineering sections of miscellaneous policies. The rates charged for this cover are administered by Tariff Advisory Committee (TAC). The entire premium charged for this cover is ceded to the pool after deducting 2% as service charges for the Cedant Company.

4. At the beginning, Indian corporations - especially power utilities - were reluctant to take terrorism cover. The few corporations that had decided to purchase terrorism risk coverage included petroleum refiners and some ports 18. Power utilities reluctance to take terrorism cover was partly driven by the potential adverse impact on their bottom lines. Insurance costs of power utilities are restricted to 2.5 per cent of the operation and maintenance costs. Consequently, taking terrorism risk implied that the costs of the high premia would have to be treated as additional expenditure, with the concomitant impact on the rates of return. Few power utilities, especially independent power producers, were prepared to accept this rate of return reduction.

5. Moreover, domestic insurers were also not very enthusiastic on selling such terrorism risk covers. This was partly because of the steep reinsurance premia and tight caps on maximum reinsurance liabilities. Reinsurers had capped their liabilities to a maximum of Rs. 200 crores (USD 40 million). Besides, reinsurers starting from 2002 were not willing to accept terrorism as part of the treaty arrangements any more. As a result, most of the domestic non life insurers had to pool their risks or take reinsurance on a facultative basis, which were prohibitively expensive.

6. According to the available information, terrorism risk premia have been recently reduced in a significant manner 1. In a circular issued to all the non life insurers in the country. The Tarrif Advisory Committee (TAC) of the Insurance Regulatory and Development Authority (IRDA)

7. Reduced the premium from 0.05 per cent per mille (50 paise per Rs. 1000 of sum assured) to 0.03 (30 paise per Rs. 1000). Industry sources said that reduction in the premia was partly driven by the low claims ratios in terrorism insurance. In fact, very few corporations in the country have made claims on terrorism related losses. The reduction might also be driven by the reduced risks perception and/or reduce cost of international retrocessional coverage.

8. After an initial period in which the maximum coverage per risk was set at Rs. 200 crores (USD 40 million), from January 2004 the pool had the financial capacity to offer (terrorism cover up to Rs. 300 crores (USD 60 mills) per location, alongwith the above mentioned premium reductions, the coverage limits have been recently raised to Rs. 500 crores (USD 100 million) per event per location. The charges took effect on February 1, 2005.

9. As a result effective from February 1, 2005 the premium / coverage factor for terrorism risks has been set by the Authority as follows:

S.No.	Total sum insured per location (MD+ LOP) Rs./crores.	Premium on Total sum insured.	Rate (per mille)	Overall (MD+LOP) liability cap per location/compound
1.	Up to 500	Full rate of		TSI
		a. Industrial risk	0.30	
		b. Non industrial risk.	0.20	
		c. Residential risks	0.10	
2.	Upto to 500 and upto 2000	First 500 as per (1) above		
		Plus		
		On the balance Sum Insured		Rs. 500 cr.
		full rate of	0.25	
		a. Industrial risks	0.15	
		b. Non Indus. risk		
3.	Over 2000	First 2000 as per (2) above		
		Plus		
		On the balance sum insured		
		full rate of	0.20	Rs. 500 Cr.
		a. Industrial risks	0.12.	
		b. Non-Inds. risks		

Conclusion:

There is certainly no ready made solution that can be recommended to resolve all problems of terrorism risk coverage & each arrangement will have to be tailored to the specific needs of each market. The experience so far available suggests that a layered approach for the compensation perhaps offer the most realistic solution to both the capacity and uncertainty problems of terrorism risk. While this approach has generally been adopted by most countries including USA, UK, Germany, France, Australia and others, each one of them has designed different layers for allocation of risk among various parties involved. The four indicative layers are -

1. Retention by the insured.
2. Intervention by direct insurer
3. Intervention by reinsurers and
4. Government intervention by way of excess or stop loss.

The markets may also consider desirability of making terrorism risk cover mandatory for all property risk with sum insured of more than say 1 million $

Annexure B gives details of Terrorism Insurance Schemes in select countries.

The arrangement provides coverage for all the categories of risk resulting from terrorist acts, except aviation, marine & nuclear risks which need to be addressed separately.

Annexure - A

Definitions of terrorism acts for the purpose of compensation in countries

Country	Status of definition of terrorism	Intention of terrorist act	Identification of authors/people behind the act	Means used	Targets/effects
Australia	Contained in s. 5 Terrorism Insurance Act 2003Act of terrorism has to be certified by the commonwealth Treasurer, after consultation with the Commonwealth Attorney - General.	Action done, or threat made, with the intention of advancing a political, religious or ideological cause, with the intention of coercing or influencing by intimidation the government of Australia or the Australian States or Territories, or a foreign country, or intimidating the public.	Not specified	An act (or threat of an act), that is not advocacy, protest, dissent or industrial action, that causes specified damage.	An action that causes serious harm to a person, serious damage to property, causes death or endangers life or creates a serious health or safety risk, or seriously interferes with, or disrupts or destroys an electronic system.
Austria	Industry definition	To influence the government or put the public or any section of the public in fear.	Terrorist organizations or individuals N.B: Standard policy conditions for property and loss insurance excludes inter alia damages incurred as a consequence of acts of violence committed by (political or) terrorist organization (not defined). Such damage can only be covered through a special agreement.	Act or threat of violence	Human life, tangible or intangible property or infrastructure.

Country	Status of definition of terrorism	Intention of terrorist act	Identification of authors/people behind the act	Means used	Targets/effects
France	Article L421-1 of the Criminal Code (no distinction between the notions of "attack" and terrorist act")	Seriously and intentionally disrupt law and order.	Individual or joint undertaking.	Intimidation or terror	
				List of offences: 1. Deliberate attempts on people's lives, deliberate attacks on people's wellbeing, abduction and false imprisonment, as well as the hijacking of aircraft, ships and any other means of transport; 2. Theft, extortion, destruction and damage, as well as computer-related crime; 3. Offences relating to combat groups and movements that have been disbanded; 4. The manufacture or possession of arms, lethal weapons and explosives, as defined in Article 3 of the Act of 19 June 1871 repealing the Act of 4 September 1870 on the manufacture of weapons of wan the production, sate, import or export of explosive substances, as defined in Article 6 of Act No. 70-575 of 3 July 1970 , amending the regulations applying to explosive powders and substances.	
Germany	Definition of EXTREMUSAG	Acts committed for political religious, ethnic or ideological purposes suitable to create fear in the population or any section of the population and thus to influence a government or public body.	Persons or groups of persons.	The insurer shall indemnify, if this has been specially agreed, in respect of insured property which is destroyed, damaged or lost due to: a. fire, explosion, b. impact or crash of aircraft or aerial bodies and vehicles, also craft, of all kinds, their parts or their cargo, c. Other malicious damage, insofar as the mentioned perils are caused by an act of terrorism committed in the Federal Republic of Germany.	

Country	Status of definition of terrorism	Intention of terrorist act	Identification of authors/people behind the act	Means used	Targets/effects
Netherlands	Definition used for the operation of the Terrorism Risk Reinsurance Company (start of activities : 1 July 2003)	Attacks or series of attacks likely to have been planned or carried out with a view to serve certain political and/or religious and/or ideological purposes.	Whether or not in any organizational context	Any violent act and/or conduct committed outside the scope of one of the six forms of acts of war as referred to in Article 64(2) of the Insurance Business Supervision Act [1993 wet toericht verzekeringsbedrift] - in the form of an attack or a series of attacks connected together in time and intention, as a result whereof injury and/or impairment of health, whether resulting in death or not, and/or loss of or damage to property arises or any economic interest is otherwise impaired.	Acts against persons and property of any nature.
United Kingdom	Reinsurance (Acts of Terrorism) Act 1993 (for Pool Re arrangements in Great Britain - other arrangements apply in Northern Ireland). The issue of a certificate by the UK Treasury (or, if refused, by a decision of a tribunal) is required for an act to be recognised as a terrorist act for the purpose of the scheme, under the Reinsurance (Acts of Terrorism) Act 1993.	Acts of persons acting on behalf of or in connection, with any organization which carries out activities directed towards the overthrowing or influencing, by force or violence, of her Majesty's government in the United Kingdom or any other government de jure or de facto.		Not specified	Targets are not specified in the definition of terrorism itself. However, the Pool Re scheme is limited to damages to commercial property and consequent business interruption costs arising from an act of terrorism.

Country	Status of definition of terrorism	Intention of terrorist act	Identification of authors/people behind the act	Means used	Targets/effects
United States	Terrorism Risk Insurance Act of 2002 - Public Law 107-297 An act of terrorism is an act certified by (be secretary of the Treasury in concurrence with the Secretary of State and the Attorney General of the United States; Any certification or decision not to certify an act or event as an act of terrorism shall be final and may not be subject to judicial review; Acts or events committed in the course of a war declared by Congress, or losses resulting from acts or events which, in aggregate, do not exceed $5,00,000 shall not be certified as terrorist acts.	Part of an effort to coerce the civilian population of the United States, or to influence policy or affect the conduct of the US by coercion.	Committed by one or more individuals acting on behalf of any foreign person or foreign interest	Violent act or dangerous act	Endanger human We, property or infrastructure result in damges within the united states, or outside the US in the case of an attack of an air carrier or vessel, or premises of a US mission.
Spain	Definition of the risks covered by the consortium by the Consortium (no prior government statement is needed in order to compenstate for damage under this heading)	Every act committed with the object of destabilising the established political order or generating fear and insecurity in the social environment in which they are perpetrated	Not specified	Act of violence	People and goods

Country	Status of definition of terrorism	Intention of terrorist act	Identification of authors/people behind the act	Means used	Targets/effects
	Specific case of stale terrorism Criminal Code definition of terrorism (Section 2, Art 571)	Disrupt the Constitution or seriously undermine law and order	Members of armed factions or people working for or in co-operation with armed factions, organizations or groups whose aim is to disrupt the Constitution or seriously undermine law and order	Acts of destruction or ares started deliberately	Not specified
Switzerland	Definition of, the insurance association	In pursuit of political, religious, ethnic, ideological or similar purpose which may result in putting the public or any section of the public in fear or influencing any government or governmental organization.		Act or threat of violence. The definition shall not include civil unrest (act of violence against persons or property committed in the course of unlawful assembly, riot or civil commotion or associated looting).	

Terrorist and Disruptive Activities (Prevention) Act, 1987

Whoever with intent to overawe the Govt. as by law established or to strike terror in the people or any section of the people or to alienate any section of the people or to adversely affect, the harmony amongst different sections of the people does any act or thing by using bombs, dynamite or other explosive substances or inflammable, substances or fire-arms or other lethal weapons or poisons or noxious gases or other chemicals or by any other substances (whether biological or otherwise) of a hazardous nature in such a manner as to cause or as is likely to cause, death of or injuries to, or any person or persons or loss of, or damage to, or destruction of, property or disruption of any supplies or services essential to the life of the community, or detains any person and threatens to kill or injure such person in order to compel the Govt. or any other person to do or abstain from doing any act, commits a terrorist act.

"disruptive activity" means any, action taken, whether by act or by speech or through any other media of in any other manner whatsoever, -

(i) which questions, disrupts or is intended to disrupt, whether directly or indirectly, the sovereignty and territorial integrity of India; or

(ii) which is intended to bring about or supports any claim, whether directly or indirectly, for the cession of any part of India or the secession of any part of India from the Union.

Explanation:

For the purposes of this sub-section,

(a) "cession" includes the admission of any claim of any foreign country to any part of India, and

(b) "secession" includes the assertion of any claim to determine whether a part of India will remain within the Union.

(3) Without prejudice to the generality of the provisions of sub section (2), it is hereby declared that any action taken, whether by act or by speech or through any other media or in any other manner whatsoever, which -

(a) advocates, advises, suggests or incites; or

(b) predicts, prophesies or pronounces or otherwise expresses, in such manner as to incite, advise, suggest or prompt, the killing or the destruction of any person bound by oath under the Constitution to uphold the sovereignty and integrity of India or any public servant shall be deemed to be a disruptive activity within the meaning of this section.

(4) Whoever harbours or conceals, or attempts to harbour or conceal, any disruptionist shall be punishable with imprisonment for a term which shall not be less.

Indian definition of Terrorism as per the Prevention of Terrorism Act, 2002.

The terrorism has not been defined instead the terrorist activity has been defined in the prevention of terrorism act, 2002 which says as whoever

(a) with intent to threaten the unity, integrity, security or sovereignty of India or to strike terror in the people or any section of the people does any act or thing by using bombs, dynamite or other explosive substances or inflammable substances or firearms or other lethal weapons or poisons or noxious gases or other chemicals or by any other substances (whether biological or otherwise) of a hazardous nature or by any other means whatsoever, in such a manner as to cause, or likely to cause, death of or injuries to any person or persons or loss of, or damage to or destruction of, property or disruption of any supplies or services essential to the life of the community or causes damage or destruction of any property or equipment used or intended to be used for the defence of India or in connection with any other purposes of the Govt. of India, any State Govt. or any of their agencies, or detains any person and threatens to kill or injure such person in order to compel the Govt. or any other person to do or abstain from doing any act;

(b) is or continues to be a member of an association declared unlawful under the unlawful activities (Prevention) Act, 1967 (37 of 1967) or voluntarily does an act aiding or promoting in any manner the objects of such association and in either case is in possession of any unlicensed firearms, ammunition, explosive or other instrument or substance capable of causing mass destruction and commits any act resulting in loss of human life or grievous injury to any person or causes significant damage to any property, commits a terrorist act;

(c) where any person is in unauthorized possession of any

a. arms or ammunition specified in columns (2) and (3) of Category I or Category III (a) of Schedule 1 to the Arms Rules, 1962, in a notified area,

b. bombs, dynamite or hazardous explosive substances or other lethal weapons capable of mass destruction or biological or chemical substances of warfare in any area, whether notified or not.

Shall be guilty of terrorist act notwithstanding anything contained in any other law for the time being in force.

Annexure - B

Terrorism Insurance Schemes in OECD Countries (2005) - Comparative Table
(data current as of 1 May 2005)

Countries	Australia	Austria	France	Germany	Netherlands	Spain	United Kingdom	United States
Name of Scheme	ARPC (Australian Reinsurance Pool Corporation)	Osterreichischer Versicherungspool zur Deckung von Terrorrisiken	GAREAT (GestJon del' Assurance et de la Reassurance des Risques Attentats et Actes de Terrorisme)	EXTREMUS Versictierung AG	NHT (Nederlandse Herverzekeringsmaatschappij voor Terrorisme-sch-aden) ccs	(Consorck de compensation de Seguros)	Pool Re	Tria (Terrorism Risk Insurance Act of 2002)
Date of establishment	July 2003	October 2002 (covering risks from January 2003)	December 2001 (covering risks from January 2002)	September 2002 (covering risks from November 2002)	July 2003	1954	1993	November 2002
Basic structure	Hybrid pool/post funded model established by the Terrorism Insurance Act of 2003. The legislation Overrides terrorism	Purely private co-reinsurance pool set up by the Verband der Versicherung unternehmen Osteneichs (WO, the Austrian Insurance Association). The Austrian	GAREAT is a co-reinsurance pool offering reinsurance protection to direct insurers provided that they cede the terrorism risk forming part of all qualifying policies within their	EXTREMUS is a specialist insurance company with a share capital of $ 50 million writing only terrorism business. The German State offers limited guarantee. The annual maximum	NHT is a dedicated reinsurance company writing terrorism risks. A "Terrorism cover clause" was added to all new and/or amendable policies providing for overall	In Spain, terrorism is part of a series of risks known as "extraordinary risks", which have special insurance treatment within a system that includes other political risks and natural catastrophes. Coverage for extraordinary risks in certain classes of insurance (see below) is mandatory. A specific extraordinary risks coverage clause is	Pool Re is a mutual reinsurance company authorized to transact reinsurance business. The scheme covers losses resulting from an Act of terrorism as defined in the enabling Act of	Pursuant to the terrorism Risk Insurance Act of 2002 (TRIA), while insurers are required to make available, in all property and casualty insurance policies, coverage for losses arising

Countries	Australia	Austria	France	Germany	Netherlands	Spain	United Kingdom	United States
	exclusion clauses in eligible insurance contracts. Eligible terrorism risks can be reinsured with ARPC.	pool is open to insurers and reinsurers writing business in Austria. 99% of WO members belong to the Pool.	porfolio. The French state acts as reinsurer of last resort, offering unlimited protection through the CCR.	indemnity for each client is limited to € 1.5 billion.	terrorism exposures to be limited to € 1 billion per year. Pursuant to an agreement with the Govt. if needed, emergency legislation will restrict terrorism exposures in non amendable life insurance policies to conform to the overall NHT exposure limit of € 1 billion.	compulsorily attached to the ordinary policies issued by private insurers 21 in said classes of insurance. The Conscorcio does not issue policies. All extraordinary risks can legally be covered by private insurance companies. Otherwise, the Consorcio will automatically take charge of the guarantee, following the said coverage included in the policy underwritten with the private insurer. In practice, the private market does not directly cover those risks, thus the CCS is the direct insurer. The CCS also acts as a warranty fund when a private insurer, having assumed the coverage of a extraordinary risk (like terrorism), can no longer fulfil its obligations, such as following bankruptcy.	Parliament, the Reinsurance (Acts of Terrorism) Act 1993. Pool Re's Retrocession Agreement with HM Treasury provides funding in the event that it exhausts all its financial resources following claim payments.	from an act of terrorism as defined under Section 102 of the Act, a special risk sharing arrangement has been set up by the federal government to limit market exposure.

Countries	Australia	Austria	France	Germany	Netherlands	Spain	United Kingdom	United States
Layers of Coverage	First accumulation of a cash pool of $ 300 million funded by premia second $ 1 billion commercial line of credit, in excess of $ 300 million. Third $9 billion Government indemnity, in excess of $1.3 billion, to give a total of $10.3 bill on available to meet claims. If this amount will be insufficient to meet losses from a series of events then Die treasurer must declare a pro rata reduction in claim payments in order to contain the comm. liability within the $ 10.3 billon limit.	First up to an annual aggregate of €50 millon, co-insured by direct insurers, in proportion to their market share: second up to an annual aggregate of €150 million, in excess of €50 million, underwritten by the international reinsurance market.	First €400 million in annual aggregate: co reinsurance provided by pool members (i.e. direct insurers, in proportion to their market share) second (for 2005) €1.2 billion in annual aggregate, excess of €400 million: coverage provided by international insurance market third (for 2005)-€400 million in annual aggregate, excess of €1.6 billion: coverage provided by international reinsurance market fourth/ overspill above €2 billion: unlimited protection provided by CCR, backed by state guarantee.	First €2.0 billion in annual aggregate: provided by primary insures and reinsurers domiciled in Germany and International reinsurers. Second €8 billion in annual aggregate, exess of €2 billion. State guarantee.	First €7.5 million: provided by Participating "franchise primary insurers second €400 million in the aggregate: pooled cover provided by participating primary insurers third € 400 million in annual aggregate, excess of € 400 million: provided by International reinsurers fourth € 200 million in annual aggregate, excess of $ 800 million: provided by international reinsurers and Dutch government (50% each). Should the aggregate limit of € 1 billion over be exceeded, there would be pro rated reductions in amounts to be paid against claims, in accordance with a detailed protocol.	Trie CCS is supported by an unlimited State warranty if the losses are above its own ability of payments though as yet this has never been necessary.	First industry retention amounts (see below) second pool re coverage up to the full amount of its fund. Third UK government indemnity upto 100% of dairns above funds value. A € 500 million loan facility is available to Pool Re should the government indemnity obligation be triggered, as the treasury only disburses funds on certain dates.	First - each insurer is responsible for an annual deductible based on a percentage of its prior year direct earned premium. The percentage varies over the three year period of operation: 7% in 2003, 10% in 2004, and 15% in 2005, second once an insurer has met its backstop deductible, the federal government is responsible for paying 90% of the insurers losses above that amount, subject to annual marketplace aggregate retention amounts (see below) and related mandatory recoupment provisions.

Countries	Australia	Austria	France	Germany	Netherlands	Spain	United Kingdom	United States
Limitation of exposure of private sector	Retention set at (he lesser of € 1 m wonor 4% of gross fire and industrial special risks (ISR) premium revenue per insurer per annum, and $ 10 million across the industry per event.	Not applicable.	£ 1.5 Million (2000) € 1.75 billion (2003) £ 2 billion) 2004, 2005)	£ 3 billion (2002, 2003) £ 2 billion (since March 2004). The State Guarantee, however, is not unlimited currently £ 8 billion in the annual aggregate excess of the £ 2 billion provided by private sector).	£ 800 million	Not applicable.	Industry wide retentions: year 2003 £30 million (per eventy £60 million (per year) year 2004 - £50 maton (per event)/ £100 million (per year) year 2005 - £75 million (per event)/ £150 million (per year) year 2006 £100 million (per event)/ £200 miBion (per year) individual insurers retentions are based on market share.	Industry wide maximum retention amounts: $10 Wlton in 2003; $12.5 billion HI 2004 $15 billion to 2005. The insurance industry and federal governments share of losses is capped to a combined annual amount of $100 billion.
Temporary/ permanent Govt. participation	Temporary. No terminal date, but subject to periodic revision.	Not applicable.	Temporary, currently until end of 2006.	Temporary. Currently until end of 2005.	Temporary, has been renewed for 2005.	Permanent	No terminal date, but subject to periodic assessment.	Temporary, currently until end of 2005.

Countries	Australia	Austria	France	Germany	Netherlands	Spain	United Kingdom	United States
Gratuity of government coverage	No Insurers must pay reinsurance premia to ARPC.	Not applicable.	No Government receives premium for unlimited guarantee.	No Govternment receives premium for guarantee.	No. Government receives premium for guarantee.	No. Because the extraordinary risks coverage system (terrorism included) is financed with the surcharges paid by policyholders.	No. Govt. receives premium for coverage under the scheme.	No initial premium, but amounts paid to insurers subject to mandatory and discretionary recoupment via surcharge on policyholders as set by the secretary of the treasury, but not to exceed 3% of policy premium charged.
Voluntary/ mandatory	Reinsurance with ARPC is voluntary. Coverage of terrorism risks in eligible insurance contracts is mandatory.	Insurance of terrorism risk covered by the scheme is voluntary. Participation in the pool is voluntary.	Coverage of terrorism risk is a compulsory element of insurance policies covering property damage, including motor policies, since 1986. Pool membership is not compulsory. However, it is currently automatic for insurance company members of the federation franchise des societies Assurances (FFSA) and mutual insurers in the Groupment des Enterprises mutudesde l' Assurance (GEMA.)	Coverage of terrorism risk is optional. As EXTREMUS is an incorporated primary insurance company membership requirements are not applicable. EXTREMUS provides its services to all clients, brokers, agents etc.	Coverage of terrorism risks optional. Membership of NHT is optional. Participating insurers, however, are required to cede all their terrorism exposure to the pool.	Coverage of extraordinary risks, including terrorism, is mandatory for all of the dasses listed below since 1954 (business interruption since 2004).	Membership of Pool Re is not obligatory. Direct Insurers that are members are deemed to provide terrorism cover, in the terms of the scheme, to those poNcyhoWers that request it. Even if coverage is not mandatory insureds are not permitted to select which properties to insure against terrorism risk. Their choice is to select to have terrorism cover either for all of their properties or none at all. An insured purchasing terrorism cover for mat erial damage may elect not to do so for business interruption.	Insurers are required to make terrorism risk coverage available in all commercial properly and casualty insurance policies. Clients can turn down the offer. Coverage is however compulsory for workers compensation.

Countries	Australia	Austria	France	Germany	Netherlands	Spain	United Kingdom	United States
Minimum sum insured	No	No	€ 6 million	€ 25 million	No	No	No	Aggregate losses must exceed $ 5 million before any government sharing of losses from a certified act of terrorism.
Coverage of CBRN terrorist attacks	Partial : all nuclear causes excluded.	No	Partial : exclusion of damage caused by Conventional weapons or devices designed to explode by means of the structural modification of the atomic nucleus (with the exception of "dirty" bombs, whose effects are covered).	No	Yes	Yes	Yes (since 2003)	Yes, but only if covered under same terms and conditions of other risks covered under the policy.
Lines covered	Commercial property and business interruption (arising from toss of or damage to or inability to use eligible property), li	All property lines (industrial, commercial and private) other than transport insurance.	Commercial and industrial risks for direct property loss and business interruption. The scheme includes a waiver of subrogation	Commercial and industrial property damage and business interruption (provided that the business interruption	All times are covered (life and non life), with the exception of aviation hull and aircraft liability.	Idemnification by CCS is linked to insurance policies from any company in the market for the following classes: fire and natural events, land vehicles (vehicle damages, not civil	Commercial property damage and consequent business interrupton coverage was originally limited to fire and explosion	Commercial property and causualty lines (including excess insurance, workers compensation and surety), with certain

Countries	Australia	Austria	France	Germany	Netherlands	Spain	United Kingdom	United States
	ability arising from ownership or occupational eligible property (Definition of eligible property in section 3 of the Act.)		rights against motor insurers in the event of a terrorist attack involving a vehicle.	is linked to an insured property damage toss) arising from fire, explosion, collision or falling objects from airplanes or flying objects as well as vehicles of all types, parts the of or their cargo or other malicious damage.		liability), railways vehicles, other damages produced to goods (robbery, plate glass, machinery breakdown, electronic equipments and computers), business interruption and accident insurance.	as named peril. Since 2003 it is offered on an all risks basis. Sffil excluded, war and related perils, computer hacking, virus and denial of service.	exclusions.
Pricing mechanism	Reinsurance premium levels between 2 and 12 per cent (depending on risk and location) of underlying commercial property insurance premia have been mandated from October 1, 2003	Rating structure for reinsurance premia; from 0.75% to 4.0 % of the sum insured (for participants in the pool): from 2.25% to 12.0% of the sum insured (for non participants in the Pool). Direct insurers are free to set	Direct insurers set the rates to be applied on original business. Pool members cede the following rates (expressed as % of property insurance premia) to GAREAT: Insured value between € 6 million and €20 million: 6% insured	Ratings are between 0.25% and 0.6% of the sum insured. Pricing does not vary with the location of the risk. The premium rate depends only on the original sum insured for the conventional cover and the yearly aggregate limit	Not publicly available.	The premium for the cover of extraordinary risk is taken by the original policy insurer. A 5% administration chage is deducted before the insurer transfers the appropriate amount to CCS. For property damage, their rates applied on sums insured differ accordingly with the risks covered : homeowners 0.009%, buildings 0.014% ,commercial 0.018%,	Reinsurance is provided to members at rates stipulated in the Underwriting Manual. The material damage rates are related to geographic zones by postcode within the United Kindgom; in broad terms these are grouped in Central and inner London,	Direct policy premia subject to state law, with exception for premia charged prior to 12/31/03. No initial premium for government reinsurance backstop, but amounts paid to insurers are subject to mandatory and discretionary recoupment via surcharge on policy holders as

Countries	Australia	Austria	France	Germany	Netherlands	Spain	United Kingdom	United States
	Reinsurance rates may be increased up to three times after an event Direct insurers are free to set premia to be paid by insureds.	premia to be paid by insureds.	value between € 20 million and €50 million: 12% insured value above € 50 million: 18%.	purchased by the insured. If the latter is lower than the original sum insured, a discount will be given and the ratings may even remain under 0.25%.		industry 0.025%, motor fixed premium based on the vehicle, civil works 0.034% to 0.195% for personal insurance (accidents): 0.00096%. For business interruption: real property, rate of 0.0005% to be applied on the amount insured for material damages; and other risk, rate of 0.025% on the amount insured for business interruption.	other city centers, and the rest of England together with Scotland and Wales. There is a single rate for business interruption, which is not allocated to particular zones. Rates are applied to the full value at risk. Members are free to set the premia for their underlying policies.	set by the secretary of the treasury, but not to exceed 3% of policy premium charged.
Other public sector victims compensation schemes	No scheme is administered at the national level. Some states established criminal injuries compensation funds.	Compensation of victims of intentional crimes is offered, under certain conditions, by the Ven Vecnesopferg eseb (Acton granting aid to crime victims, VOG).	FGTI-Fondse Garantiedes Victories des actes de terrorisme et dautres infractions (Compensation Fund for victims of terrorist actions and other offences).	Opferents-chadi-gung sgeseh (Victim Compensation Act, OEG).	Criminal Injuries Compensation Fund Act.	Article 93 of Act 13/1996 and the regulation on benefits and compensation to victims of terrorist crimes (RATV) passed by RD 288 of 7 March 2003. Act n. 32/1999 on solidarity with the victims of terrorism (LSVT)	Criminal injuries compensation scheme administered by the Criminal Injuries Compensation Authority (CICA) criminal damage (compensation) (Northern Ireland) order 197 (SI. No. 1247 No.1 .14)	U.S. September 11, Victims Compensation Fund of 2001. Other State Compensation Funds.

RECENT THREATS TO THE INSURANCE SECTOR - TERRORISM AND CYBER CRIME

- T. T. Mirilla

INTRODUCTION

I feel very much honoured to be invited to share my thoughts on the very topical issue: "RECENT THREATS TO THE INSURANCE SECTOR - TERRORISM AND CYBER CRIME".

I want to thank the organizers of the conference for the invitation and I am indeed very grateful.

The timing could not have been less propitious, following recent events in London and Egypt. Terrorism in all its forms and manifestation constitutes one of the most serious threats to international peace and security. The very nature of terrorism - great uncertainty about when and where an attack will be, and how bad it might be makes this a particularly subjective area of insurance underwriting. However, the events in new York, Bali, Madrid, London and Egypt have brought to light, a new dimension of International terrorism, with a staggering, previously inconceivable scale of destructive scenarios and loss potential.

In sharing my thoughts and for obvious political and religious reasons, I will not dwell on the merit or demerit of such attacks. It is also my view that in the time allotted for this discussion it will not be possible to discuss the various forms of terrorism. I am also aware that this is a very distinguished and informed audience who would have at one point or the order scanned the massive literature on the subject of terrorism both in hard form and on the Internet.

I will therefore, look at the subject from a claims impact perspective, underwriting and increased cooperation amongst insurers.

Once again I salute you for this initiative.

TERRORISM

The phenomenon of terrorism is difficult to define in unambiguous terms. Terrorism has no precise universally accepted definition. This is because acts that convey terrorist impressions are often viewed from different perspectives as those considered terrorists by one group of people or government of a state might be regarded as heroes or freedom fighters by some other people. However, in spite of the foregoing, several definitions have been attempted in contemporary writings.

For example, the following definitions bare out the difficulty of defining terrorism :

- The U.S. NATIONAL COUNTER TERRORISM CENTER (NCTC) described a terrorist act as one which was; "premeditated; perpetrated by a sub national or clandestine agent; politically motivated, potentially including religious, philosophical, or culturally symbolic motivations; violent; and perpetrated against a non-combatant target."

- The United Nations has not accepted any definition of terrorism as being authoritative. However, the UN "academic consensus definition," written by terrorism expert A.P. Schmid and widely used by social scientists, states that,

  > "Terrorism is an anxiety - inspiring method of repeated violent action, employed by (semi-) clandestine individual, group or state of actors, for idiosyncratic, criminal or political reasons, whereby-in contrast to assassination, the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly (targets of opportunity) or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat - and violence-based communication processes between terrorist (organization),

(imperilled) victims, and main targets are used to manipulate the main target (audience(s), turning it into a target or terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily sought",

- UN short legal definition, also proposed by A.P. Schmid: an act of terrorism is the "peacetime equivalent of war crime".
- In November 2004, a UN Panel described terrorism as any act : "intended to cause death or serious bodily harm to civilians or non-combatants with the purpose of intimidating a population or compelling a government or international organization to do or abstain from any act".
- U.S. Code of Federal Regulations : "...the unlawful use of violence against persons or properties to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives".
- Current U.S. National Security Strategy: "premeditated, politically motivated violence against innocents".
- United States Department of Defence: the "calculated use of unlawful violence to inculcate fear; intended to coerce or intimidate governments or societies in pursuit of goals that are generally political, religious, or ideological."
- USA PATRIOT Act: "... acts dangerous to human life that are a violation of the criminal laws of the United States or of any state".
- The British Terrorism Act 2000 defines terrorism so as to include not only attacks on military personnel, but also acts not usually considered violent, such as shutting down a website whose views one disliked.
- League of Nations Convention (1973): all criminal acts directed against a state and intended or calculated to create a state of terror in the minds of particular persons or group of persons or the general public.
- Britain Jenkins: "Terrorism is the use or threatened use of force designed to bring about political change."
- Walter Laqueur: "Terrorism constitutes the illegitimate use of force to achieve a political objective when innocent people are targeted".
- James M. Poland : "Terrorism is the premeditated, deliberate, systematic murder, mayhem, and threatening of the innocent to create fear or intimidation in order to gain a political or tactical advantage, usually to influence an audience".

Even in the Insurance Industry there exists quite a number of different definitions, which attempts to focus more on the effect than on the motives of this phenomenon.

The Swiss Re defines terrorism as "an act or threat of violence or an act harmful to human life tangible or intangible property or infrastructure with intention or effect of coercing any government or putting the public in fear."

The London Market War, Civil war, Political risk and terrorism exclusion clause defines terrorism as "an act, including but not limited to the use of violence or force and the threat thereof, whether as an act harmful to human life or not, by any person or groups of person(s), whether acting alone or on behalf of, or in connection with any organization or government(s) or any person or body of persons, committed for political, religious, personal, ethnic or ideological reasons or purposes including any act committed with the intention to influence any government and or for the purpose of inspiring fear in the public or any section thereof".

The US Terrorism Risk Insurance Act of 2002 requires State certification for damages caused by act of terrorism. For act of terrorism to be so certified, the act must constitute;

- A violent act or an act that is dangerous to human life, property or Infrastructure
- Committed within the US on a US Air Carrier or vessel, against US Aircraft abroad or on the premises of a US mission (e.g. embassy or consulate).

- By perpetrating individuals or groups acting on behalf of any foreign person or foreign interest.

- In an effort to coerce the US government or civilian population.

Most FAIR members would appear to be caught between the above definitions, if they allow terrorism coverage in their portfolios.

Whatever the definition that may be given to terrorism, it is a settled matter universally that the act is no longer a new phenomenon but has only gained renewed efficiency in its deployment with advances in science and technology making the activities of terrorist more sophisticated and deadly.

Loss Impact & Reactions

For every Terrorist attack that is successful, the losses are spread over three main headings namely;

- Property, of all descriptions,

- Human lives and

- Economic loss.

The selected examples in Appendix I, bares out the loss making potential of the terrorist attack.

The World Trade Organization attack has been well documented and the loss arising therefrom is nearly fully developed from the initial estimate of $32.5 billion, the estimates have now been reversed and put at more than $ 100 billion for insured losses.

With regard to the 7th July 2005 London attack, the estimates for property losses is being worked out, but a total of 56 lives were lost including the terrorists.

The Madrid train bombings resulted in 191 deaths and injured 1500, as yet, no figures for property loss are available.

The failed 21st July 2005 attack in London, did not record fatalities and property damage but obviously there is a marked level of economic loss that will continue throughout July. Commentaries in the business press following the attack, estimates the economic loss to be around £ 2 billion per day.

The Sharm el-sheikh bombings of 23rd July, 2005 in Egypt recorded 88 fatalities with more than 100 people injured, cost of property damage has not been released.

The sheer scale of losses particularly insured losses forced property re insurers to rethink the size of their potential exposures and perhaps more importantly, the way in which they measured their risks. The short-term reaction of the risk bearing markets was predictable and include;

- Introduction of terrorism exclusion in standard property policies.

- Cost of managing risks rose up.

- Available limits on many types of coverage were slashed.

- Terms and conditions in insurance contracts were narrowed.

- Global Insurance and reinsurance capacity fell drastically.

Life insurers remain fully exposed to the extent of their policyholders involved in attacks, as terrorism is not excluded in life policies.

There is an ongoing debate on whether the workmen compensation policies should pay losses arising out of a terrorist attack. The argument being that terrorism should not be considered an occupational risk.

These debates are continuing and it is doubtful if claims resulting from terrorist attacks with regards to workmen compensation policies will be excluded. This is because of the very nature of the policy which is embedded and forms a type of Social Security for workers backed by legislation.

Government have continued to react with a view to protecting and providing compensation to affect persons in the aftermath of attacks. Some of the efforts have seen quite a considerable pressure and arm twisting being exerted on private insurance companies to provide cover and or partner with Government to provide compensation. The US Terrorism Risk Insurance Act 2002 is a case in point. The Act which came into force shortly after the 11th

September, 2001 attack requires private insurers to partner with Government to offer some coverage up to a predetermined level and gives insurers 90 days to provide quotes for additional premium covering terrorism risks. Some of the specific provisions of the legislation are as follows:-

- An event must cause at least US $5 million aggregate property and casualty insurance losses to by certified by the Secretary of State as an act of terrorism.
- The bill is limited to International terrorism committed on behalf of any foreign or foreign interest on US, Soil damage to air carrier or vessel outside the US; or to the premises of a US mission is covered by TRIA.
- Each participating insurer is responsible for paying out however a certain amount in claims - a deductible - before the Federal assistance becomes available.
- For losses above the company's deductible, the Federal Government will cover 90% with the insurer 10%.
- The aggregate insurance industry retention in 2004 was US $ 12.5 billion and US$ 15 billion in 2005.
- Losses covered by the programme are capped at US$ 100 billion.
- Lines excluded from the programme are: Personal Lines, assumed reinsurance, Federal Crop, Mortgage Guaranty, Financial Guaranty, Medical Malpractice, Flood Insurance, Life and Health.
- The Act sunsets after three years on December 31, 2005.

A June 2004 report from insurance broker Marsh Inc. found that the proportion of US businesses that purchased terrorism cover during the first quarter of 2004 rose to its highest level since the enactment of TRIA in November, 2002. According to Marsh 44.2% of US businesses obtained coverage in the first quarter of 2004, up from 32.7% in the fourth quarter of 2003.

One may ask does TRIA affect the availability and the price of coverage? The answer is positively yes. The sharing potential losses from terrorist attacks between private insurers and the government, (TRIA) has brought much needed additional capacity to the terrorism market. Before, TRIA, businesses were left with little or no terrorism coverage. Terrorism coverage is very difficult to price because the frequency and severity of an attack is so unpredictable. Pricing of terrorism coverage varies according to the individual risk (based on factors such as location and industry for example) but it is clear that TRIA has had a stabilizing influence on the market.

In Europe, there are pool arrangements supported by government to provide some coverage for losses arising out of terrorist attacks. Pools includes:

UK	-	The UK Pool (Pool Re)
Austria	-	The Austrian Pool (Osterriechischer Terro Pool)
Spain	-	The Spanish Pool (CCS)
France	-	The French Pool (Gareat)
Germany	-	The German Pool (Extremus)

Details of some of the Pools are as contained in Appendix II culled from Sigma publication of Swiss Re.

Should Private Insurers Provide Cover For Terrorism Losses?

The organizers of this conference choose the topic, "Recent threat to the Insurance Sector - Terrorism and Cyber Crime" which immediately presupposes that there is quite some doubt as to whether or not terrorism cover in particular should be covered by private insurers. Insurance thrived over the years on the ability to properly evaluate and price a risk that is presented. It follows therefore that for a risk to be insurable, it must be;

(a) Accessible

(b) Of random Occurrence

(c) Affect a population of persons

(d) Amenable to the calculation of a MPL

All of the above consideration come into play in the pricing of any insurable risk introduced to an insurer. Other underwriting consideration, which the insurer can legitimately exercise, includes:-

- Definitions
- Imposition of loss limits
- Exclusions
- Lien, where legislation permits
- Warranties

I must admit that there is a raging debate on whether private insurance companies should provide coverage for losses arising out of acts of terrorism. Strictly speaking going by the above listed criteria, insurers have no business providing terrorism coverage's. From a legal standpoint, it would appear that the act of terrorism whether political or religious in nature, leading to losses may not be considered as fortuitous and therefore should be left to the state to deal with.

We as practitioner have allowed ourselves to be drawn into the unfortunate situation of providing coverage for terrorism losses perhaps purely out of our desire to remain competitive and keep valued clients and/or show solidarity to our various country Governments and have in so doing created avoidable portfolio imbalance by our acceptance of this unquantifiable loss making event which ultimately affect our balance sheet, adversely.

I am aware that the OECD in its July 5, 2005 report is arguing that private insurance is the best vehicle to provide coverage for terrorism losses. However, it acknowledged that there is a role for government in countries where private capacity is insufficient. My immediate reaction to this position is that even the developed economies, private capacities are severely limited to cover losses that may arise from terrorist attacks.

However, it is also instructive to note that Alan Greespan, Chairman of the Federal Reserve Bank USA, has admitted in a recent statement that private insurers alone cannot handle risks of losses resulting from terrorist attacks.

In testimony before the House Financial Services Committee, published in the Insurance Journal of July 2005, Greespan maintained that terrorism and geopolitical risk have become enduring features of the global landscape. "The type of terrorism that is arising in the context of increasing technologies which were not available before has created possibility of huge losses. And there is no way for a private system to handle that", he told congressional lawmakers, who are weighing whether or not to renew the Terrorism Risk Insurance Act.

I feel strongly, that we as insurers must collectively take a stand on the matter of providing terrorism Lose covers as our very survival or otherwise may depend on that decision. The increasing and devastating terrorist attacks in recent times globally does not encourage the view that the various governments are winning the war against terrorism or even containing it.

The business of insurance is a precise business, which should not be diluted with sentiments. The state, as the insurer of the last resort, should take over the rather high loss making potentials of terrorist attacks. Consideration may be given to imposing some levy on policyholders and companies to supplement government budget towards payments for such losses. This to my mind, will free private insurance companies of the burden of providing cover (whether limited or not) for payment of such losses, if governments were to make provision of terrorism insurance compulsory.

Cyber Crime

Computers and the Internet can offer great benefit to society as being on the Internet and effectively using its Services brings great opportunity at limited cost.

For many businesses including educational Institutions, e-mail has become the preferred means of communication and many provide Internet access to their personnel.

The Internet and e-mail are powerful information tools. By their very nature they facilitate almost instant exchange and dissemination of data, images and materials of all types. However, the still evolving information technology, which includes the Internet can also present huge opportunity for crime.

It is known that the threat of fraud has inhibited some businesses from using the Internet. Sophisticated computer criminals are found on the Internet. The manipulation of data or programmes for financial gains is the most frequent criminal act.

Cyber Crimes includes the following:-

1. **Phishing :-** here the perpetrators Spam the Internet with e-mails claiming to be from reputable and respected financial institutions or e-commerce sites urging the victim to click on a link included in the message so as to update their personal details. The personal information is diverted to those perpetrating the fraud.

2. **Hacking :-** hacking may be defined as "deliberately gaining unauthorized access a computer systems". Hackers, may be subdivided into three:-

   a) **Recreational Hackers:-** Relatively benign and are attracted by the challenge of breaking into a system and showing up failings in companies security. They may still cause damage that result in financial loss to the victim company.

   b) **Criminal-minded Hackers:-** These are driven by financial gains, sabotage or revenge and may involve insiders of the organization and the intention is to gain confidential information. The theft of such confidential information from companies may be used for blackmailing, espionage and sabotage. The disgruntled employee can also attempt to vandalize the company system.

   c) **Political Hackers:-** These are mainly political activists sometimes called "hacktivists" by their activities they may be able to deface website in an attempt to put across their message and discredit their opponents.

3. **Denial of service attack**

   The tactics used here involve the flooding of websites with e-mails and data with the intention of making it crash, thus preventing legitimate users of the website from gaining access. Regaining normalcy on such attack website can take hours if not days during which period the company would have suffered a considerable financial loss. The FBI has expressed concern at the current level of such attacks and describing it as "unprecedented".

4. **Piracy :-** These involve software piracy, which can result in significant revenue loss for the companies that manufacture such software programme be it for games or businesses.

5. **The Nigeria '419 Scam' :-** The scam derived its name from the Nigerian penal code '419' which makes it a criminal offence to seek and receive 'advance fee' with no intention of providing the service or goods for which it was intended. Even though this law has remained in the books for more than fifty years, the weakness of the Nigerian criminal justice system in swiftly prosecuting offenders has led to the growth of this scam through International Syndicates.

6. **Gambling:-** This is operating in Cyber space virtual casinos. This may be based in countries that put them beyond any regulation. There is a growing concern that organized crime may take advantage of such operations to launder money.

Definition

There is no commonly accepted definition of what Cyber Crime means. This may be as a result of its relatively new emergence in law enforcement lexicon and criminal justice globally.

For example, - the British police defined Cyber Crime as "the use of any computer network for crime".

- The Council of Europe - convention in cyber crime of 8/11/2001 defines cyber crime as "criminal offences committed against or with the help of computer networks".

- Another definition is that cyber crime is a criminal act that can only be committed using cyber-technology and can only take place in the cyber-realm. (Tavani 2005).

Cyber crime is one of the fastest growing criminal activities on the planet. It covers a huge range of illegal activities including financial scams, computer hacking, downloading pornographic images from the internet, virus attacks, stalking by e-mails and creating websites that promote racial hatred.

WHAT THEN WILL MOTIVATE AN INDIVIDUAL TO ENGAGE IN CYBER CRIME ACTIVITIES

The answer to the above question can be broken down into three main areas.

1. Hackers - Usually motivated by ego or pride to gain access into some other persons or organizations secure computer or network in order to haunt their success. Such people are intrinsically inspired by boredom or the desire for intellectual challenges or recognition.

2. Criminals - These are individuals whose sole purpose is to use cyber technology and cyber realm to commit criminal acts for their personal gains. They are no different from the common robbers. Such acts could be in form of espionage, fraud, force to gain access and steal.

3. Vandals - These are individuals who are either disgruntled with their place of work or with life generally. Their main intent is to do damage or cripple the activities of innocent victims on the cyber-realm.

WHAT ARE THE TOOLS OF THE TRADE

Wireless Networking Technology

- Password crackers
- Networking scanning software
- Illegitimate website to lure people into giving information over the web.
- SPAM - Used to get e-mail lists to possibly cause more damage.

TYPES OF INTERNET CRIME

There are various forms of crimes committed on the Internet. These include Extortion, Vandalism, Harassment, Virus attacks, Internet blackmails, Espionage, Organized fraud, crackers and e-mail voyeurs, Interception, Packet snifters, Spoofing, Cancelling programmes and Junk mail.

Loss Impact

Losses arising due to cyber crimes are on the increase worldwide but particularly in USA and Britain. India also has been mentioned in the network.

The following loss experiences tell the story;

1) In India a Pakistani hacker group calling itself FBA has hacked into 10 Indian sites two of which belonged to the Punjab Government's Department of Information Technology. So far as at June 2003, 494 Indian sites have been hacked. In April 2003 alone, 270 Indian sites were hacked. Whereas for the whole 2002, Indian sites suffered 288 hacks.

2) Also, a computer engineer, along with three friends, hacked into computer networks of global credit card companies by using a decoder to access details of credit cards and then made counterfeit credit cards and embezzling about 10 million rupees. Banks such as Standard Chartered, American Express, Hong Kong and Shanghai, and Cartasi SPA Milani.

3) In the United Kingdom, the National Hi-tech Crime Unit Survey into computer - related financial crimes reveals that 83% of companies surveyed suffered some form of hi-tech crime during 2003. The total financial impact on those affected was estimated at over £ 195 million.

4) In United States of America ¾ Phishing attacks siphoned $ 929 million in 2003 alone, by using stolen banking details to steal from accounts. Also, data theft accounted for over $ 10bn in losses (2002) in America according to the federal trade commission. The theft of 40 million credit card details in June 2003 fuelled consumer fears of doing business over the Internet.

A national crackdown on cyber criminals by US authorities in 2003 led to the arrest of over 130 people over five months period who in total are estimated to swindle 89,000 victims out of some $ 176 million.

The Association of British Insurers reports that the insurance claim in UK for computer crime amounted to £ 200 million. They estimated that this was 20% of the potential claims that would have been made.

In contrast, the FBI estimate cyber crime produced losses of $5 billion in the USA and Europol estimate a figure of $ 7.8b for Europe all for 2003.

HOW INSURABLE IS CYBER CRIME ?

The insurance sector presently provides coverage for computer hardware and to some extent software. There is also some market for named cyber crime losses. However, insurance against cyber crimes is an emerging area and has to be accepted there is a considerable restraint in granting such cover to cater for cyber extortion threats and hacking.

Nonetheless, it should be borne in mind as insurers, that we provide cover particularly to banks under fidelity guarantees and bankers policies. In addition, there are covers for corporate bodies to protect patent rights but the most worrying from my point of view is the likely increase in the claims from bankers under the policy that are granted to them for losses resulting purely form cyber crimes. As a check it would be necessary to review the events covered under the fidelity guarantee and bankers policies in order to reduce if not eliminate the passing on of losses due to cyber crimes.

Cyber Crime is a type of terrorism and needs to be specifically excluded from the normal policies issued to bankers. However, on per institution basis it may be possible to underwrite losses on accommodation resulting from named cyber crimes. In so doing the underwriting needs necessarily to be conservative and sufficient information provided by the company seeking the coverage to determine the likely level of losses and economic premium applicable. I have suggested this rather cautious approach for the simple reason that such crimes are usually localized to companies attacked. For example with a bank and its customers who they under the normal business have granted certain credit limits.

Notwithstanding, it must be emphasized that cyber crimes are serious problems that require in-depth study and serious underwriting consideration.

CONCLUSIONS

In conclusion I like to admit that this paper has been most challenging for me particularly given the volume of literature on terrorism and cyber crime. The speed of new developments further compounded the difficulties I faced in attempting to narrow down the thrust on the paper to make it relevant to the conference.

I hope that in spite of the difficulties the paper has thrown up some issues that will make for further discussions.

I like to acknowledge the support I received in putting together this paper from my colleagues in Nigeria Re and associates in the Nigerian, African, London, US and Indian markets.

I thank you for patience.

God bless you all.

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Appendix I

Some Selected Losses from Terrorist Attacks

DATE	COUNTRY	LOCATION	EVENT	PROPERTY LOSS	LIFE	ECONOMIC LOSS
19/04/1995	U.S.A.	Oklahoma City	Truck bomb attack in government building in Oklahoma city	$145m	467 Injured 166 Death	$ 757m
09/02/1996	U. K.	London Docklands	Bomb attack in London South key Docklands	£ 170 m	200 Injured	
15-06-1996	U.K.	Manchester	Bomb attack	£ 411m		£ 61b
10/04/1992	U.K.	Bishop's gate8 St. Mary's Axe Bombs	Bomb attack	£ 800m		
11/09/2001	U.S.A.	NYC Washington DC.	Terror attacks against WTC and Pentagon by hijacked Airlines	Over £ 100 bn.		

Appendix II

Some Terrorism Insurance Schemes
(As at 1 April 2003)

Solutions implemented prior to 11 September 2001

COUNTRY	PROVIDER	DETAILS
Northern Ireland	Government	Terrorism cover for local risk is excluded. The Criminal Damage Compensation Scheme established in 1978 provides compensation on indemnity basis for property damage caused by terrorism or unlawful assemblies of three or more persons; and for malicious or wanton damage to agricultural property.
Spain	Consorcio	The Consortia de compensation de Seguros (CCS) is a state insurance facility which guarantees cover for 'extraordinary risks' such as earthquakes, volcanic eruption, flood, storm, terrorism and civil commotion. The cover is integrated into polices issued by private insurance companies who collect premium on behalf of the CCS. Following deregulation in 1990, it became possible to insure these risks privately, whereupon the CCS became a provider of subsidiary Coverage only, paying out indemnities when private insurance policy does not cover the risk in question, or when it does cover them but become insolvent. Cover granted by the CCS follows the minimum level of protection defined by law. Policy holders must pay CCS premium in any case, thus maintaining the principle of solidarity for catastrophic risks. With effect from 1 January, 2002 business interruption due to terrorism is included.
`United Kingdom	Pool Re	The International Reinsurance market withdrew capacity as a consequence of IRA terrorism in the 1990s, which in turn led to a state supported solution: Limited cover with additional excess cover is available. Pool Re reinsures its members (insurance companies) at rates prescribed in the Pool Re tariff. Membership is not compulsory but pool protection is available to members only (currently around 200 insurers). Geographical scope: UK excluding Northern Ireland, Isle of Men and the Channel Islands. Coverage is based on a Pool Re specific terrorism. The English government acts as Pool Re's "re-insurer of last resort", in case of insolvency. In the course of 2002 the Pool Re scheme which provides for commercial property (terrorism risk) saw some changes. The key changes were: • Extension of the cover for acts of terrorism which cause commercial property damage and consequent business interruption from a "fire and explosion only" to an "all risk basis". • From 1 January 2003 nuclear contamination as a result of terrorist attack is covered.

		• The retention for each insurer changed from previously GBP 100 000 per head of cover per policy to a proportion of an industry wide figure. From 1 January, 2003, the maximum industry retention is set at GBP 30 m per event / GBP 60 m per annum, with individual insurer's retentions based on their market share. Over the next four years the industry retention will increase steadily to GBP 100 m per event / GBP 200 m per annum in 2006. the new basis for retention works for the benefit of the insurers, which have their losses, capped, both per event and per annum. Thus, the insurers know in advance the maximum amount they could be called on to pay in anyone-year. • Pool Re but the insurers themselves according to normal commercial agreements no longer determine changes in the financing of Pool Re, e.g. premiums for underlying policies. • New : exclusion for computer hacking and virus damage to electronic components. The existing war risks exclusion remains unchanged.

Solutions Implemented After 11 September, 2001

COUNTRY	PROVIDER	DETAILS
Austria	Terrorism pool	From 1 January, 2003, the Austrian terrorism pool gives automatic protection for commercial risks up to EUR 50 m. Risks between EUR5 and 25 m can be ceded to pool with payment of additional premium, while risks exceeding EUR25m must be covered on a facultative basis. Biological and chemical combination is excluded. The Pool retention is EUR 50 m in the annual aggregate, apportioned between Austria insurers according to market share. Reinsurance (EUR 150 m in the annual aggregate excess of EUR 50 m retention) is placed in the international reinsurance market. Whether the Austrian government will ultimately assume the risk in excess of EUR 200 m is still an open issue.
France	GAREAT	With effect from 1 January, 2002, France set up a state-controlled pool for terrorism cover called GAREAT (Gestion de l' Assurance et de la Reassurance des Risques Attentats et actes de Terrorism). This pool insures and co-reinsures risks whose insured value exceeds EUR 6 m, covering material damage and loss of profits from Fire and Engineering insurance. Transit risks are not ceded to the pool. The pool operates on an annual aggregate loss basis and was renewed for 2003 with a modified structure: The primary of EUR 400 m is retained by the direct insurance industry. The 2nd and 3rd layers, EUR 1.1 bn in excess of EUR 400 m and EUR 250 m excess EUR 1.5 bn, respectively, are placed with the international reinsurance market. The 4th layer is an unlimited guarantee over EUR 1.75 bn granted by the French state though CCR.

Germany	Extremus	Following an agreement between the German insurance industry and the Federal government a special insurer (Extremus Versicherungs - AG) was established to cover buildings and contents as well as business interruption losses arising from acts of terrorism in Germany. Licence was granted by the Federal Financial Supervisors Authority (Ba Fin) on 22 October and business was taken up by 1 November, 2002. Insured objects: industrial and commercial risks located in Germany with an insured amount exceeding EUR 25 m per Insured/policy. Risks below that threshold shall be borne by the private insurance industry. The insurers can apply for an annual aggregate limit that is commensurate to their potential terrorism risks. The maximum annual aggregate limit for anyone insured (company /group) is EUR 1.5bn. Cover : property damage and business interruption. Perils: fire, explosion, malicious damage, falling aircraft or vehicle impact caused by terrorism. Main exclusion: war and civil war, civil commotion, nuclear energy risks, nuclear radiation and radioactive substances, biological and chemical contamination, contingent business interruption. Extremus purchases reinsurance capacity of EUR 3bn per insured event and in the annual aggregate, in two layers. The 1st layer covers losses up to EUR 1.5bn and is placed exclusively with direct insurers and reinsures operating in the German market. The 2nd layer (EUR 1.5bn) is placed in the international reinsurance market. Over and above the EUR 3bn, the federal government provides a EUR 10bn guarantee, per insured even in the annual aggregate, against a share of the premium. This guarantee is due to expire at the end of 2005, unless otherwise agreed.

Solutions Under Discussion

Some countries in Europe are discussing plans to set-up specific terrorism insurance schemes. For example Switzerland and the Netherlands.

Sources

France	:	Gestion de l' Assurance ET del el Reassurance des Risques Attentats et Actes de Terrorisme (GAREAT)
Germany	:	Extremus Versicherungs - AG
Northern Ireland	:	Northern Ireland Information Service
Spain	:	Consorcio de Compensation de Seguros
UK	:	Association of British Insurers (ABI); HM Treasury / Pool Re

Source : *Swiss Re.*

Some Company Terrorism Covers

Company	**Market**	**Products & Highlights of Coverage**	**Capacity**	**Base Premium**
Ace Usa, Philadelphia	U.S. and Canadian Commercial Property - may not be available in all U.S. states or Canadian territories.	1st party stand-alone coverage, both admitted and non-admitted.	$100 Million	Varies depending on exposure.
AIG, New York	Airline Industry.	1st party stand-alone coverage, aviation war risk, hijacking liability coverage.	$ 150 Million in excess of $50 Million in agrregate, up to $850 Million in excess of $ 150 Million; total of $ 1 Billion per airline.	NA
	Property	American International Companies property Terrorism Facility - Worldwide, domestic & foreign property cover; Property damage & BI cover, Location must be specifically named, policy period not to exceed one year.	$150 Million per even and in aggregate (Maximum any one insured)	$ 50,000 minimum.
ALLIANZ AG, Frankfurt, Germany	Airline Industry.	3rd party liability for airlines	Up t o$ 1 Billion per aircraft and up to $ 2 Billion per airline per year.	Calculated per passenger carried and applies to all airlines insured.
ARCH Capital, Bermuda	Multiple Markets	Coverage on a selected basis - 1st party property damage, excluding nuclear biochemical. Availability varies by territory.	Varies by Zone	Varies depending on customer / exposure.

AXIS Speciality, Bermuda	Multiple Markets.	Terrorism as a 1st party stand - alone; property, aviation marine.	$ 100 Million	Between 1 to 2 percent online.
Berkshine Hathaway	Multiple Markets.	1st party stand-alone coverage, 3rd party coverage available.	$ 500 Million	Varies depending on customer / exposure.
Oil Insurance Ltd. Bermuda	Energy Company Cover. (Oil Insurance Ltd.)	All Risks Physical Damage, Control of Well & 3rd party Pollution Liability - open to all eligible energy companies.	$ 250 Million per occurance-no sublimit	$ 250,000 per Oil rules with a $ 5 million deductible.
	Energy Company Cover. (Oil Insurance Ltd.)	3rd party liability and D & O for members.	$ 150 Million	$ 25,000 per Oil rules with a $ 50 million deductible.
	Energy Company Cover. (Oil Insurance Ltd.)	All risks excess physical damage and well control (on Oil form), BI cover to Oil or OCIL members.	$ 200 Million	$ 375,000 for excess PD and $ 1.5 million for BI
Lloyd's of London	Multiple Markets	1st party physical damage or BI caused by terrorist acts.	$ 200 Million	1 to 5 percent of insured limits.
Special Risk Insurance and Reinsurance Luxembourg (Zurich Financial Services, XL Capital Ltd. Swiss Re, SCOR, Hannover Re, Allianz.	Property Coverage.	Physical Loss or damage to insured properties - directly resulting from an act of terrorism. European risks only.	EUR 500 Million	NA

Source : Betterley Report & Risk Insurance.

PRODUCT MANAGEMENT OF LIC

(Article based on Ph.D. thesis by Hari Govind Mishra - Lecturer
G.D.B. Academy of Management, Mirzapur).

Product management in service sector has acquired special status. It has become essential for achieving the survival and growth objective of the organisation. Product policy and strategy is the cornerstone of marketing mix. The product must satisfy consumer needs. Need describes the basic human requirement. These needs become wants when they are directed to specific objects that might satisfy the need. People may need food but they, may want mango or banana to satisfy their needs. Demands are wants for specific products supported by ability to pay. The product management must understand the willingness and ability to pay to purchase the product. The Life Insurance Corporation of India has properly analysed whole life and endowment policies to meet the requirements of different segments although there is not much differences in their vales and prices.

The product is successful if it delivers value and satisfaction to the customer. "We define value as a ratio between what the customer gets and what he gives. The customer gets benefits and assumes costs.[1] Good products are key to market success. It is the vehicle by which a company provides consumer satisfactions. LIC's products fill the needs of society by providing investment and safety to the customers. It has closely mixed the marketing elements viz. product, price, promotion and place.

Product management in this paper analyses the product concept and product related strategies of LIC.

Product Concept

Product is a bundle of satisfaction. Since need is a feeling of lacking something, product must fill that lacking to satisfy the customers. The feeling may be relating to attributes, benefits, ideas and concept itself. Product is defined as "to indicate that consumers are not really buying a set of attributes, but rather benefits that satisfy their needs". It is more than a tangible good. "A product is a set of tangible and intangible attributes including packaging, colour, price, quality and brand, plus the seller's services and reputation. A product may be a good, service, place, person or idea. Consumers are buying much more than a set of physical attributes when they buy a product." Product has also been described by Philip Kotler as "any thing that can be offered to a market to satisfy a want or need."

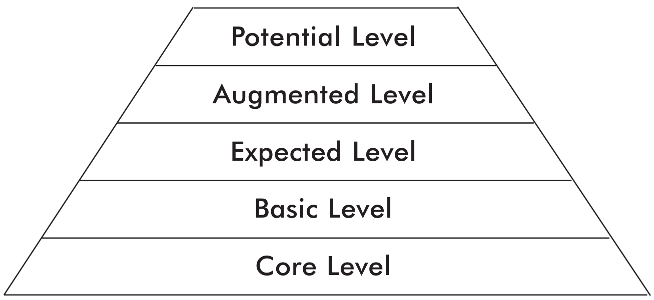
The product concept is analysed under product Levels. Dimensional Product concept, product Hierarchy and product classification.

Product Levels :

Product should be understood with its different levels. Each level of product satisfies some specific needs of the people. Each level of product has its significance. It has been divided into five: core product, basic product, expected product, augmented product and potential product.

Fig. 1

Five Product Levels



1. **Core Level :** The first level of the product is the benefit that customer wants to satisfy. The LIC has issued whole life policy as the core level of LIC's product as the benefit of safety. The investment and other benefits are secondary. The Life Insurance policy provides elements of

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2. Ibid, b 374
3. Kotler Philip : Marketing Management : Prentice Hall of India, 2001. p 405
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protection and investment. After getting insurance, the policyholder feels a sense of protection because be shall be paid a definite sum at the death or maturity. The product of LIC is life policy with various elements of protection and investment.

2. **Basic Level :** The basic level of the product comes after core-level. The prompt payment of the dues at the time of death or maturity comes under basic level. Investment is the basic level of life policy as it provides an additional benefit of investment alongwith safety and security. Endowment policies serve basic level of the product.

3. **Expected Level :** At this level, customers expect a set of attributes of the product. The marketer provides the expected product level at some additional costs. For example double accident benefit is provided by charging an extra premium. Similarly the soldiers, house ladies, occupationally hazard prone employees etc., are given the policies by charging some extra premiums. Insurance of sub-standard lives by LIC should be increased to cover a larger population which would be not provided by other private insurers.

4. **Augmented Level :** The customers' expectations are augmented at this level. Customers expect to get prompt services from the LIC for assignment, nomination, transfer, loan and payment of claims at the time of maturity or death. It has been observed that many branch managers hand over the cheques of claims at the death of the insured to win over the confidence of the family-members. The attitude of the potential policyholders is changed at the augmented level. The LIC can meet the competition at this level by providing augmented services to the customers.

   Sometimes the augmented services are provided free of costs and at other places it bears certain costs. For example, double accident benefits are provided by charging extra-premium. The Consumers' Affairs committee of LIC has been a step in this area.

5. **Potential Level :** The product encompasses all the possible augmentations and transformations. The LIC finds new ways to satisfy customers and distinguish their offer. It not only satisfies the customers but delights them by surprise services.

There is a three Dimensional product concept: Explicit, implicit and external characteristics. Larry J. Rosenberg has used the three dimensional model:

Fig. 2

The Three Dimensional Model of Product Concept

Explicit Characteristics (Management)		**Implicit Characteristics (Consumer)**
Brand Package Related Services Core Specification Product life Cycle competition	→	Symbolism Communication Perception Satisfaction

External Characteristics (Society)
Impact on Environment Claim on resources Safety to users Product Related information

A. Managerial Dimension

Product has certain explicit characteristics. They are core specification, related services, package and brand, product mix and product life cycle. The core specification includes shape, size, materials and colour. It is physical shape, nature of the product, service and or an idea. The related services include services as a part of selling agreement viz., installation, repair service, operation instruction. Packaging has become an essential part of the product as it satisfies some needs of the consumers. Product mix is a particular product in relation to the other product from the same seller. It is a product design and distribution decisions to create market position that relates well with other products in the line. The sale of a product follows a general time pattern from the slow growth, faster growth, slower growth, peak and decline. It is well known as product life cycle. The LIC has evaluated the life cycle of different life policies to decide their continuation. It is described in the chapter of product diversification. The core specification incorporates two products of LIC i.e. Whole Life and Endowment.

1. **Whole Life Product :** Whole life policy is the core product of LIC. It has been selling since beginning of LIC. The endowment life policy is the package and brand of whole life policy as it has included investment element alongwith protection element of the whole life product. All other products of LIC are mix of whole life and endowment policy. The number of whole life policy has declined from 135 thousand in 1990-91 to the lowest of 15 thousand in 1999-2000. However it increased to 33 thousand in 2001-2002. The increase in number was due to increase in convertible whole life policy from 7 thousand in 1999-2000 to 24 thousand in 2001-2002. The overall observation reveals that all product lines i.e., whole life, convertible whole life and whole life limited have been declining since 1990-91.

   From the above discussion, it is clear that the business of whole life product is declining. The LIC cannot, depend upon this traditional product for survival.

2. **Endowment Assurance :** Endowment product of LIC has increased from 3778 thousand policies in 1990-91 to 5117 thousand policies in 2001-2002 and 6904 thousand policies in 2002-2003. There has been declining trend upto 1994-95 and improvement gradually thereafter. The first five years have been the period of declining business. The business of endowment product including double endowment has increased from Rs. 9,539.65 crore in 1991-92 to Rs. 34,702.54 crore in 2001-2002. The first five years have not been encouraging. After touching the low position of Rs. 10,003.15 crore in 1994-95, it increased to the level Rs. 34702.84 crore in 2001-2002. This reveals that endowment assurance has been more popular than the whole life product amongst the people. Since endowment carries the benefits of protection and investment, it is becoming useful for the policyholders. In India, people are investment oriented as it is clear from the business of investment product in subsequent sections.

3. **Core Products and Total Products :** The total core products i.e. whole life and endowment have increased from 3913 thousand in 1990-91 to 6937 thousand in 2001-2002 giving minimum of 3031 thousand in 1994-95 whereas the percentage of crore products to total product has gone down from 45.26 per cent in 1990-91 to 27-87 per cent in 1994-95 and thereafter; it increased to 33.92 per cent in 2000-2001. The LIC has to find out some alternative products for its growth. It is a discouraging trend when the sum assured under crore product as compared to sum assured of total products has gone down from 36.39 per cent in 1990-91 to 18.35 per cent in 2001-2002. The year 1994-95 has been the sluggish when the percentage share of sum assured of crore product to total product has declined to a very low level of 19.18 percent.

The basic level product is endowment and whole life. It has not been able to compete in the market. The products are useful for the society but people have developed some other needs which are being served by the competitors. This caused increase of market share of private insurers.

B. Consumer Dimension

The product is viewed by consumer by certain angles such as symbolism, communication, perception, evaluation and so on. Consumer symbolizes the functions, meaning and purpose from different angles. Communication is symbol, information interaction, feedback and culture. It discovers the profitable message of the product to convey to consumers. Consumer should perceive the product in a right perspective. A product is evaluated by the consumer. The degree of satisfaction of a product depends on the evaluation process. It considers the relationship between the anticipated reward of a product and the effort necessary to reach it. In India, customers of life insurance have not properly perceived the life product. They purchase the life policy only under compulsion. It is sold and not bought. There have been several environmental factors which have prevented life insurance consciousness. Literacy, low income, occupation, presence of joint family system etc., have been the inhibiting factors of life insurance. The agent and development officers have been devoting their time to pierce the life insurance market. Mass advertisement, customers' education and overall appeal by the LIC have not been utilized during past four decades. It is in 1990-91, the LIC authorities took certain steps to mobilize insurance saving and protection.

1. **Consumer Affairs Committee :**
   A Consumer Affairs committee was constituted on July 14, 1997 at the central office with 5 Board members and 3 outside members connected with consumer movement with a view to advising Corporation on matters of consumer interest so as to improve customer services. Several customer friendly measures were taken for improving customers services.

2. **Insurance ombudsman :**
   The office of Insurance ombudsman was created in the year 1998 for arbitration between customer and insurance companies. There are 12 Insurance ombudsmen in the country.

3. **Citizen's Charter :**
   The LIC has formulated the citizen's charter in 1997-98 to improve the services and enhance customer's satisfaction. Under the charter, benchmarks were fixed for most of the servicing functions and customers' meets were held and useful suggestions were given for improving customer satisfaction.

4. **Upgrading of Information Technology :**
   Considerable thrust was given to upgrade information technology in various offices of the corporation for better and efficient customer servicing.

   1. Almost all branch offices of LIC are equipped with Front End Application Program Modules covering all policy servicing aspects to give prompt service to customers e.g., introduction of new policies, acceptance of premium, revival, loan, alteration etc. upto claims settlement. Many of the modules are in the process of re-engineering. The Corporation has wide Area Network to help customers to pay premium and to get policy status report.

   2. The Corporation has its own website www.licindia.com which is very attractive and user-friendly. Customer gets his policy status report on line. The Corporation has tied up with eight banks and three service providers to give on-line premium payment facility to customer.

   3. The Corporation has Info centers equipped with state of the art technology and manned by trained persons to give any information regarding life insurance products.

   4. E-mail facilities have been provided to LIC offices, training centers and overseas offices to make communication faster and cost-effective.

   5. Metro Area Net work (MAN), Wide Area Net work (WAN) and Interactive Voice Response System (IVRS) have been installed to help policyholders serve better. Information kiosks are provided to serve the policyholders with the help of VSNL status report to policyholders and value added services are provided by the LIC. The policyholders are able to get policy details over phone and fax.

   6. The information has been provided in Hindi also. LIC' website : http:/www.licindia.com was made interactive enabling policyholders to calculate premium as well as accumulated bonus.

5. **Implementation of Ganeshan Committee Recommendation :**

1. Specific targets were assigned for individual offices to ensure that first premium lapsation did not exceed 15% and showed atleast 2% reduction every year.

2. Lapse control mechanism have been revamped to continuously review and monitor the progress.

3. Special campaigns for educating customers and prospective customers through customers' meet and media publicity were launched. Special revival campaigns with wide publicity was undertaken and a large number of policies were revived.

4. Various Schemes of incentives and disincentives were introduced for marketing officials with a view to controlling First Premium Lapses.

5. Special Training programs were also organized for Agents and Development Officers to provide them product knowledge and emphasizing the importance of need based selling and providing after sales service.

contd on pg 72....

I.I.I. NEWS

99th Mid-Term Council Meeting of the Insurance Institute of India

The Ninety-Ninth Mid-Term Council Meeting of the Insurance Institute of India was held on 30th April, 2006 at Hotel Vrishali Executive, Kolhapur, under the auspices of Kolhapur Insurance Institute.

The President of the Institute, Shri A.K. Shukla chaired the meeting. With the permission of the Chair, Secretary-General conducted the proceedings.

The minutes of the 98th Council Meeting held on 30th September, 2005 at Mumbai were confirmed unanimously.

The Budget of the Insurance Institute of India and its College of Insurance for the Financial year 2006-07 was approved.

The members approved in principle, the proposal of the Institute to seek University Grants Commission for grant of deemed university status. The rules and regulations regarding grant of status to be placed before the Council for final decision.

Secretary-General informed that a Memorandum of Understanding was signed between the Institute and Loyola College, Hyderabad to introduce insurance as a subject in their degree level course. The proposal of the Institute to grant such institutions special category of membership, say 'Special Affiliate Members' was agreed in principle, the modalities to be decided by the Board of Education and Administration Committee.

The Secretary-General informed the members the decision of the Chartered Insurance Institute, London to reduce their examination fees for our Associates and Fellows.

He also mentioned that C.I.I. is exploring the possibility of establishing, in association with Insurance Institute of India, a Society of Financial Advisors. Discussions are in progress.

The meeting ended with vote of thanks by Shri C.K. Nadgauda, Honorary Secretary, Kolhapur Insurance Institute.

PHOTO FLASHES

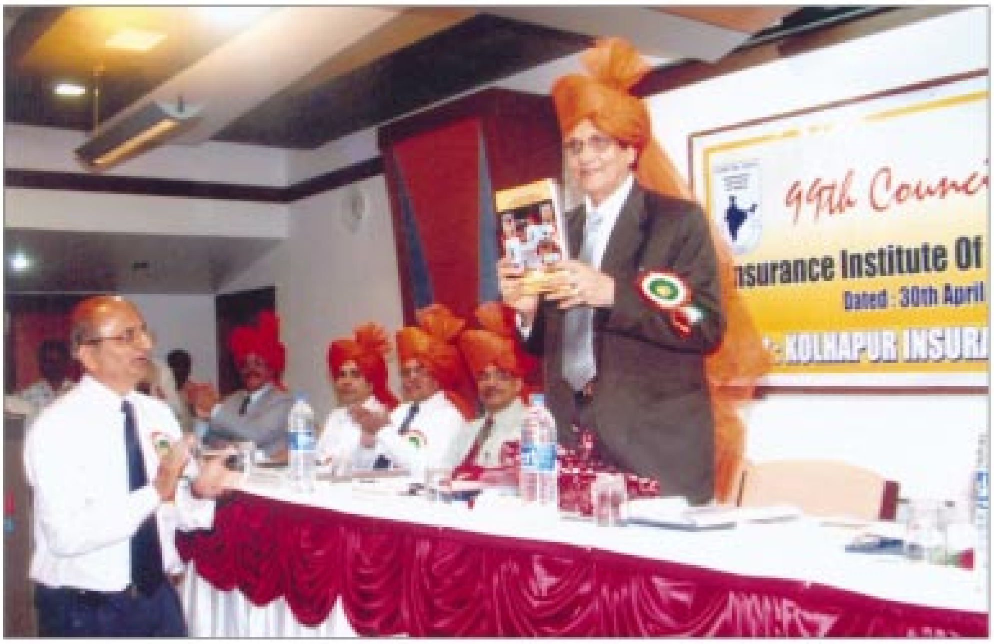
from the 99th Council Meeting held at Kolhapur on 30th April, 2006

Shri S. A. Poal, Chairman, Kolhapur Insurance Institute delivers welcome address.

Shri A. K. Shukla, President, Insurance Institute of India, lighting the traditional lamp.

Shri S. J. Gidwani, Secretary-General, Insurance Institute of India, addresses the meeting.

Shri A. K. Shukla delivers his address.



Shri A. K. Shukla, President releases the Souvenir.

A scene from Cultural Programme.

A scene from Cultural Programme

A view of the audience.

Shri C. K. Nadgauda,
Hon. Secretary,
Kolhapur Insurance Institute,
giving vote of thanks.

First Asian Conference on Training and H. R. Development in Insurance

The first Asian Conference on Training and H.R. Development in Insurance, with the theme: "Creating Strategic Advantages through Training and H.R.Development" was held on 29-30 June, 2006 at Singapore and was organized by Asia Insurance Review.

Ms. Joan Fitzpatrick, Chief Executive Officer, Australian and New Zealand Institute of Insurance and Finance was the Chairperson of Conference and Hauw- Quek Soo Hoon, Director Millea Asia Pte. Ltd., the Co-Chairperson.

The topics and speakers were :

Industry Address : Is There A Model Training Body for the Insurance Industry ?
Joan Fitzpatrick, Chief Executive Officer, Australian and New Zealand Institute of Insurance and Finance, Australia.

Special Address: Shifting Towards A Learning Culture
Puan Khadijah Abdullah, Chief Executive Officer, The Malaysian Insurance Institute & Asean Insurance Training and Research Institute.

Why I believe in Training: Walking the Talk
Rajit Mehta, Executive Director, Human Resources, Training and International Communication, Max New York Life Insurance Company Limited, India.

Industry Image and Its Correlation on Attracting Retaining Talent: Where Did We Go Wrong?
Rudi Spann, President, American Home Assurance Company, Singapore.

Strategic Challenges of Translating Training & HR Development Cost Into Results
Tan Kin Lian, CEO & Director, NTUC Income, Singapore [Leading CEO at The Singapore HR Awards 2005].

Strategic Leadership - The Model HR and Training Manager for Insurance Companies
Melecio Mallillin, President & CEO, CCC Insurance, Corporation and President, Insurance Institute for Asia and the Pacific.

Shri S. J. Gidwani, Secretary General, Insurance Institute of India was a panelist on the special panel on Training Institutions in Insurance.

The topics for the panel discussions were :

- Are Training Institutions Meeting the Needs of the Marketplace?
- The Need for Insurance Management Courses
- Key Steps in Drawing Up A Course - Market Research & Responding to Training Needs
- Accreditation and Certification - Is There A Case for Making Them Uniform Across The Region ?
- Basics In Insurance Certificate Training
- Meeting Needs for Continuing Professional Development
- Training Institutions in Asia - Competitions or Co-operation ?
- Comparison of Training Courses in the Market
- The Role of Training Bodies in Boosting Image of Insurance in Society

The lead sponsor for the Conference was ANZIIF.

The other sponsors were AIG, C.I.I., LOMA, Swiss Re, and Hungtington. The Conference was supported by Asean Insurance Training and Research Institute, The Malaysian Insurance Institute and Singapore Insurance Institute.

Leadership Intelligence : The Force for Making Powerful Leadership Decisions Arthur F Carmazzi, CEO, Director Communications International Limited.

Making HR Strategic, Tan Suee Chieh, President, Asia Pacific Region, SHL Group PLC.

Using Training and Developing to Effectively Support Distribution Patterns and Channels.
Lee Gladwell, Group Sales & Marketing Director, The Chartered Insurance Institute, U.K.

The Bottomline : Use of Competencies to improve Business Results Allison Middleton, Assistant Vice-President, International Division, LOMA, USA.

Getting The Right Person for the Job and The Cost of Failure Angela Koechli, Client Partner (Insurance), Korn / Ferry International, Singapore.

The Strategic Use of Psychometrics in Finding the Right People for the Right Job
Bharat Kannan, Regional Director, Aon Consulting - Aon Asia Ltd, Hong Kong

Case Studies on Companies with Excellent Track Record in Training and HR Development - Drawing Lessons and Best Practices.

- Damien Sullivan, SVP & COO Ace Asia Pacific
- Goh Eng Kiat, Director, Corporate Services, MSIG Holding (Asia) Pte Ltd. Prisca Peyer - Ehrbar, Head Leadership & Cultural Development, Swiss Re, Zurich.

Changing the Mindset of Senior Managers About Training and Tips on What Makes a Good Trainer.

Vincent E.M.de Leon, Managing Director, Tandika Learning Institute for Financial Services, LOMA Representative for Indonesia.

Human Capital for the Future : Nurturing Cross-Border, Cross-Cultural, Cross-Sector Expertise for Employees to Meet their Lifestyle Expectations While Serving Corporate Strategies.

Harold Kwan, Managing Director, HRM3 Asia, Singapore.

Ms. Joan Fitzpatrick, Chief Executive Officer, Australian and New Zealand Institute of Insurance and Finance addressing the Conference.

Mr. S. J. Gidwani addressing the Conference

A view of Delegates.

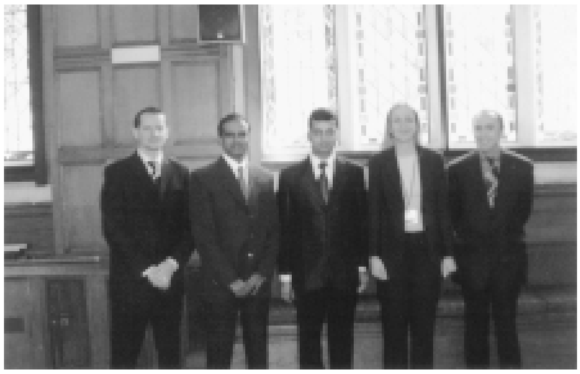
Qualifications of Chartered Insurance Institute, London at discounted rates in India

The Insurance Institute of India (III) and Chartered Insurance Institute (CII) have recently entered into a special scheme of arrangement for the promotion of the Advanced Diploma in Insurance (ACII) qualification of the CII to the Associates and Fellows of Insurance Institute of India at concessional rates.

L To R : Mr. Manish Raikar, Admn. Officer
Ms. Kim Glenister, Director, Customer Service
Mr. Gary Evans, Manager, Customer Service
Mr. N. D. Kokare, Dy. Secretary

The Chartered Insurance Institute is the premier professional organization for those working in the insurance and financial services industry. The qualifications of the Chartered Insurance Institute are recognized universally as a sign of commitment and professionalism.

The CII has recently introduced a new qualification framework which gives the candidates flexibility in study options. According to the new structure introduced by the CII, a candidate has to accumulate 290 credit points to be eligible for getting ACII qualification from the CII. These credit points can be accumulated by passing the CII subjects which are assigned different credit points depending on their level of difficulty.



L To R : Mr. Martin Reid, Head of Membership Marketing
Mr. N. D. Kokare, Dy. Secretary
Mr. Manish Raikar, Admn. Officer
Ms. Susan Divall, International Operations Manager

The Associates and Fellows of the Insurance Institute of India will be granted 120 and 210 credits respectively by way of accreditation as per the scheme of arrangement. The Associates will therefore have to accumulate further 170 credit points and the Fellows 80 credit points to be eligible to acquire ACII qualification.

The CII has also slashed the fees more than fifty percent in respect of examination fees, course books, membership fees and have totally exempted the admission fees and accreditation fees under this scheme. The members of III can thus save nearly 150 to 200 pounds per subject for the examinations of CII as per this scheme.

L To R : Mr. N. D. Kokare, Dy. Secretary
Dr. Alexander Scott, Director - General, CII
Mr. S. J. Gidwani, Secretary - General, III
Mr. Manish Raikar, Admn. Officer

AROUND THE INSTITUTES

Bangalore Insurance Institutes

Bangalore Insurance Institute commence its Golden Jubilee Celebrations with an inaugural programme on 1st June 2006, at the Conference hall of the Sri Bhagwan Mahavir Jain College, Bangalore.

Shri S. J. Gidwani, Secretary General, Insurance Institute of India, the Chief Guest at the programme, delivered the key note and inaugurated the website of Bangalore Insurance Institute.

Dr. K. Easwaran Iyer, Dean S. B. M. J. College the Special Guest delivered the Convocation address and presented the Associateship and Fellowship diploma of November 2005 examination.

Dr. K. Easwaran Iyer, Dean, S.B.M.J. College as a Special Guest, lighting the traditional lamp.

Shri T. S. Balasubramanian, Hon. Secretary, Bangalore Insurance Institute presents Secretary's Report.

Indore Insurance Institute

The Indore Insurance Institute conducted a program of series of lectures on 16th February, 2006 at Hotel Crown, Indore, headed by Shri Mohan Vatnani of National.

Dr. S. P. Parashar, Director, IIM, Indore, the Chief Guest at the program, delivered the Keynote address on, "Indian Insurance Industry beyond Regulatory Prudence."

The meritorious candidates who cleared Associateship and Fellowship examination of Insurance Institute of India were awarded diplomas by the Chief Guest, Dr. S. P. Parashar.

The second issue of bulletin, "Bima Samachar" was also released at the hands of the Chief Guest, on this occasion.

Coverage was given in local newspapers and the program was well appreciated by all.

The program ended with a vote of thanks by Shri Naresh Choudhary of National.

Shri H. C. Kataria, Hon. Secretary of Indore Insurance Institute
Chief Guest - Dr. S. P. Parashar, Director, IIM, Indore and
Shri B.R.K. Prasad, Chief Regional Manager, The Oriental Insurance Co. Ltd.

....contd from pg 61

C. Social Dimension

The societal dimension evaluates whether the product has adverse effect on people's health and characteristics. Sometimes the societal dimension conflicts with the managerial and consumer dimension such as cigarettes and liquor. Societal dimension includes impact of the product on environment, society and consumer welfare, claims on resources, safety to users, product related information and government regulations. The LIC has used the societal dimensions by issuing policies to weaker sections, too. By its investment, the LIC has benefited a large number of population. Although there is no direct realization by people, the Infrastructure development, industrial development, financial institutions and government have been concerned primarily with product management.

The LIC has been conscious about the societal dimension of the product. When some companies have been penalized by IRDA for not meeting societal dimension, the LIC has contributed significantly in this area through products for weaker section and underprivileged and several products for substandard lives.

1. **Products for Underprivileged :** Underprivileged persons are those persons whose incomes are too low to purchase life insurance policies, who have no adequate income to have provision for old age and family security and who become incapable to earn adequate income due to accident and injury. The LIC has issued Jana Raksha Policy and Jan Shree Policy alongwith group schemes. These products are issued only from societal dimensions.

   Jana Raksha policy provides farmers and industrial workers a 3-year grace period in case of non-payment premium. Jana Shree policy is group insurance given to milk sellers, rickshaw drivers, auto drivers, farmers and so on. The LIC has concentrated on development of products for underprivileged.

   (i) **New Jana Raksha Policy :** The number of policies under New Jana Raksha has continuously increased from 385 thousand in 1991-92 to 2482 thousand in 2001-2002. The sum assured under this policy has increased from Rs. 523.89 crore in 1990-91 to Rs. 6781-73 crore in 2001-2002. It shows that the LIC has been very conscious of social interest in the long run. It fulfills the expectation of social welfare and social interests.

The LIC products for underprivileged classes have also increased in comparison to total products. The policy share of product for underprivileged to total products has increased from 4.45 per cent in 1990-91 to 11.03 per cent in 2001-2002. Similarly the share of sum assured under product for underprivileged to total products has increased from 1.80 per cent to 3.52 per cent. It reveals that the LIC's contribution to insure the underprivileged class is increasing year after year.

The year 1994-95 has been the year of less performance. The share has gone down to 2.37 per cent in 1994-95. In the crore product analysis, it was also revealed that the year 1994-95 was not progressive.

Weaker Sections of society have been approved for Group Insurance Schemes under SSGS eligible for 50% subsidy of premium. It has insured Beedi Workers, Brick-kiln Workers, Carpenters, Cobblers, Fishermen, Hamals (Coolies), Handicraft Artisans, Handloom Weavers, Handloom & Khadi weavers, Lady Tailors, Leather & Tannery Workers, Pappad workers attached to 'SEWA', physically Handicapped self-employed persons, primary Milk producers, Rickshaw pullers/Auto Drivers, Safai Karmacharis, salt Growers, Pendu Leaf collectors, scheme for Urban Poor, Forestworkers, Sericulture Toddy Tappers, Powerloom Workers, Scheme for women in hilly areas, Food stuffs in Khandasari Sugar Textiles, works of wood products, Paper Products, Leather products, Printing, Rubber and Coal products and Candles products, Toys Manufacture, Agriculturists, Transport Drivers, Transport Karmacharis, Rural poor, Canstruction Workers, Fire crackers workers, Coconut processors, Aganwadi Teachers, Helpers & Kotwal.

(ii) Group Insurance Under Social Security Group Schemes :

The group insurance is a form of renewable term insurance. In the event of death of life assured, the sum assured is paid to the dependents of the deceased persons. The Government of India has provided insurance to the weaker section of the society to the tune of Rs. 15,000 at the death. Other people may get benefit of this insurance provided they pay Rs. 75 per annum premium to the LIC. Half of the premium will be met by the State Government as provided in the Annual Budget of Government of India.

Jana Shree Bima Yojana, Krishi Shramik Samajik Suraksha Yojana and outher Social Schemes have been included under Group Insurance under social security.

There has been wide fluctuation in the lives insured under New schemes from 521.87 thousand in 1990-91 to maximum of 1942.91 thousand in 1991-92 and the lowest of 254.42 thousand in 1998-99. It has been 665.88 thousand in 2002-03. The total lives covered under social security group schemes has increased from 521.87 thousand in 1990-91 to 5412.47 thousand in 2002-03. Similary the share of social security group scheme has been 44.95 per cent in 1990-91 and 84-82 per cent in 2000-2001 as compared to total group insurance. The total lives covered as compared to total group insurance has declined from 96.07 per cent in 1992-93 to 22.58 per cent in 2001-2002. The benefits to weaker sections by LIC schemes have been increasing during 1990-91 to 2001-2002.

2. Product for substandard Lives

Substandard lives are those lives who can not be insured as standard lives by the life insurance companies. The LIC has divided the substandard risks into three categories according to the incidence and intensity of extra risks involved in the insured lives i.e. increasing extra risk, decreasing extra risk and constant extra-risks. They are treated by increasing premium, decrease in death benefits, change in class and period of assurance and any combination of the above mentioned methods. The LIC has introduced Jeevan Aadhar, Asha Deep, Jeevan Biswas, Jeevan Asha and Jeevan Bharati policies for the benefits of substandard life.

LIC products for substandard lives have decreased from 375 thousand policies in 1995-96 to 42 thousand in 2001-02. The sale of Asha Deep II, has also declined from 175 thousand policies to 39 policies in the corresponding years. Similarly the sum assured has also declined from Rs. 1383.46 crore in 1995-96 to Rs. 459.25 crores in 2001-2002. Its percentage share to total product has gone down from 2.67 per cent to 0.24 per cent. The policy share has also declined from 3.40 per cent to 0.19 per cent.

The analysis reveals that the LIC is trying hard to sustain the societal dimension on the marketing of products for substandard lives. Although the LIC has done something for marketing of such products; the private insurers have done nothing in this field. They should also come forward to help substandard lives.

Product Hierarchy :

Product is stretched to satisfy various needs of customers. The Life Insurance Corporation of India has developed the product under seven hierarchy needs, i.e. family need, investment need, saving need, old-age need, readjustment needs, special needs and clean up needs.

1. **Family Need :**

The earning member of the family has the responsibility to support the family. If death occurs, the dependents suffer. Since death is certain but time is not certain, no other product except life insurance can meet this need. Whole life assurance policy is the cheapest form of such protection. The policyholder can limit the period of payment premium by purchasing limited premium life policy. If the premium is not paid, the policyholder can get the surrender value.

If the persons cannot pay the premium for long, they can purchase two year Temporary

Assurance Policy where premium amount is the least. Many insurance companies in India after IRDA 1999 have started selling Term Insurance. The LIC has been a pioneer in whole life Assurance. But it is facing competition with other companies because of this policy which is least sold in the market.

The number of whole life policies has decreased from 135 thousand in 1990-91 to 33 in 2001-2002 touching the lowest of 15 thousand in 1999-2000. It is an evidence of low popularity of whole life policies. The LIC has tried to increase the policies of term insurance from 31 thousand in 1990-91 to 1542 thousand in 2000-2001 but decline in 2001-2002 to the extent of 1321 thousand.

It is thus revealed that the term insurance is preferred to whole life policies. However, the family need has not been fully propagated by the LIC as the share of products for family needs to total LIC products increased from 1.92 per cent in 1990-91 to 18.73 per cent in 1994-95 and came down to 6.02 per cent in 2001-2002. The share of sum assured increased from 3.26 per cent in 1990-91 to 36.41 per cent in 1994-95 and came down to 7.92 per cent in 2001-2002. The private insurers have been gaining the market share with the use of term assurance. The LIC has to innovate its products of term insurance on the lines of Bima Kiran. There should be more attractive policies. Nav Prabhat introduced in 1999 have not been successful. Bima Kiran introduced in 1994-95 has been attractive as there was free term cover of additional 10 years after maturity. Such types of policies should be innovated where the accumulated premium after five years Term insurance may provide free cover for life certain period and return of certain amount at the maturity.

Jeevan Anand :

The family need is met by a new policy introduced in Feb, 2002 viz. Jeevan Anand. The plan provides the Basic sum Assured with vested bonuses in the event of death during the premium paying term and an additional insurance cover equal to sum Assured after the premium paying term. During the period of two months only 187 thousand policies of Rs. 2589.96 crore were issued by the LIC. This is very good example of innovative products. Other private insurers have copied it and tried to enhance their business by using such products in the market.

2. **Investment Need :**

   People need investment. Life insurance policy is not much inferior to any gilt edged securities or deposits in the postal saving bank. Income tax rebate is also permissible. Life policy does not depreciate at any time but it appreciates year after year by the additions of the bonus declared. Customers find an outlet for their investment in life insurance policies. Endowment policies, multi purpose policies, deferred annuities are certain form of investment. The elements of investment i.e. regular saving, capital formation and return are perfectly observed in life insurance. The life insurance policies carry a special exemption from income tax, wealth tax, gift tax and estate duty. The beneficiary of the policyholder can get a regular income from the life insurer, if the insured amount is left with him.

   The LIC has met the investment needs of the people by two types of policies (1) Traditional product and (2) New product. The traditional products are Money Back Policy and Endowment Policy. The modern products are Jeevan Shree, New Jeevan Shree, Samriddhi, Jeevan Saral, etc. The progress of endowment policy has already been discussed in core product. The sum assured of money back policy has been increasing but the number of policies has not been increasing so much. The sum assured of Jeevan Shree (a new product) has constantly been increasing from 7 thousand policies in 1994-95 to 1104 thousand policies in 2001-2002. Similarly, its sum assured has increased from Rs. 411.76 crore to Rs. 60212.66 crore in 2001-2002.

Saving Need :

In most of the life policies, element of saving predominates. The life insurance saving has certain extra advantages. Systematic saving is possible because regular premiums are required to be compulsorily paid. The saving with a bank is voluntary and one can easily omit a month or two and then abandon the program entirely. In insurance, the deposited premium cannot be withdrawn easily before the expiry of the term of the policy. The compulsion to premium in insurance is so high that if the policyholder fails to pay premiums within the days of grace, he may face lapsation. So, policyholders feel compulsion of saving.

3. Old Age Need :

The provision for old age is required where the person lives beyond his earning period. The reduction of income in old age is serious problem to the person and his family. If no other family member starts earning, they will be left with nothing and if there is no property, it would be more piteous state of problem. LIC provides old age funds for the protection of the family. It is an absolute necessity for those who do not retire with a pension. The old-age needs are met by LIC products such as Bima Nivesh, Endowment Assurance, Bhavishya Jeevan, Jeevan Sanchay and so on.

The old-age provision in broader terms include endowment, Bima Nivesh, Bhavishya Jeevan, Jeevan Sanchay, as well as term assurance and whole life assurance. They have been 45.61 per cent, 45.76 per cent and 42.63 per cent of the total products respectively in 1990-91, 1994-95 and 2001-2002. It reveals that the LIC have been very careful about the safety and security of the people.

The traditional products for investment needs i.e. Money Back has been fluctuating from 3439 thousand in 1990-91 to 4383 thousand in 1999-2000 and 3771 thousand in 2001-2002. Similarly the sum assured has gone up from Rs. 12979.08 crore in 1990-91 to Rs. 24158.72 crore in 2000-2001 although there have been slight fluctuations in different years. Its policy share to total product has also been fluctuating from 41.32 per cent in 1992-93 to 21.68 per cent in 2001-2002. The sum assured has been declining from 46.12 per cent in 1990-91 to 43.32 per cent in 2001-2002 and 28.16 per cent in 1999-2000.

The old age products of LIC have been constantly increasing from 3778 thousand in 1990-91 to 8234 thousand in 2001-2002. It is a significant contribution of LIC for the development of society and people. The sum assured has also increased from Rs. 9541.23 crore in 1990-91 to Rs. 41973.94 crore in 2001-2002. But it has not increased as compared to total product of LIC as the share of its policy to total policies has gone down from 43.70 per cent in 1990-91 to 36.61 per cent in 2001-2002 after touching the lowest share of 27.02 per cent in 1994-95. The sum assured of old age product has been at the highest 34.65 per cent in 1991-92 and 21.80 per cent in 2001-2002.

It is significant contribution of LIC for the old age provision of the people as more than one-third policies of the total policies of LIC have been for this purpose. The sum assured has been more than one-fifth of the total sum assured of LIC. It is an indication of societal development of LIC products. The old age provision is a core product of LIC. Safety, security and investment are the three components of life insurance which are completely fulfilled by the LIC.

4. The Readjustment Need :

The LIC provides adjustment in the standard of living if there is reduction in income whether by loss of employment, disability or death. If there is no such provision of life insurance, the family members have to be satisfied with meager income and have to settle down to lower income. Before coming down to the lower standard and to be satisfied with that, they require certain adjustment income so that the primary obstacles may be reduced to minimum. Endowment policy and triple benefit policies are good substitutes for meeting readjustment needs. Term Insurance has been useful for meeting adjustment need. It has been already discussed that term assurance has been major components of LIC product for meeting the old age adjustment and investment needs of the people.

5. Special Needs :

There are certain special needs of the family which are fulfilled by the earning member of the family. If the members become disabled to earn the income due to old age or death, the special needs such as need for education, marriage, and settlement of children are unfulfilled. The LIC by its special insurance products (policies) meets such requirements. The special product for children's benefits are Children's Deferred traditional product and New Products. The traditional Children's policies are Children's Deferred, Children's Anticipated Policy, New Children's Deferred and Children's Money Back. The new products for children are Jeevan Balya, Jeevan Kishore, Jeevan Chhaya, Jeevan Sukanya and Bal Vidya.

Traditional Children's Policy :

The LIC has channelised its products for the benefits of children through Children's Deferred Assurance, Children's Anticipated Policy, Marriage/Educational Annuity, New Children's Deferred Policy and Children's Money Back policy. The number of policies under traditional product has increased from 141 thousand in 1990-91 to 1503 thousand in 2001-2002. It has constantly increased with respect to Sum Assured from Rs. 551.55 crore to Rs. 10650.50 crore, It is a significant development of LIC products for special needs. Among all the traditional products, Children Money Back has been most popular followed by Marriage/Educational Annuity. The old Children's Deferred policy has been the least popular. Anticipated and New children's Deferred policies have been almost non-existent. The LIC should try to popularize the Marriage Educational Annuity and also Children's Money Back Policy by effective Promotional Strategy.

New Products for Children's Benefits :

The LIC has launched new products such as Jeevan Balya, JeevanKishor, Jeevan Chhaya, Jeevan Sukanya, Balvidya and Komal Jeevan. Among these policies Jeevan Kishore has been the most popular because of its special features of commencement of risk from the age of 7 years of the child or from the policy anniversary following immediately after the completion of 7 years of age, whichever is later. The number of Jeevan Kishore Policy has increased from 149 thousand in 1990-91 to 471 thousand in 2001-2002. The sum assured under this policy has also increased from Rs. 1084.63 crore in 1990-91 to 2425.54 crore in 2001-2002 after touching the lowest figure of Rs. 831.00 crore in 1995-96. Jeevan Chhaya has also been similarly popular as the member of policies increased from 11 thousand in 1990-91 to 242 thousand in 2001-2002. The sum assured has increased from Rs. 84.40 crore in 1990-91 to Rs. 1728.85 crore in 2001-2002. Jeevan Sukanya has been declining. The number has gone down from 33 thousand in 1992-93 to 6 thousand in 2001-2002. Recently Komal Jeevan Policy has been launched for meeting the social needs of the children. The share of new products to children's benefits to total product has been increasing from 1.86 per cent in 1990-91 to 3.20 per cent in 2001-2002. Sum Assured has not increased so fast as the share of sum assured has declined from 4.18 per cent in 1990-91 to 2.18 per cent in 2001-2002.

Total LIC Products for the Children's Benefits :

Introduction of Children's Money Back in 1994-95 has changed the position of traditional products. Money Back has been a mix of whole life and Endowment Policy. It was traditionally available for adults. But when it was introduced for the children's benefits, it increased the business. The LIC should try to introduce with great effectiveness the traditional policies because they have their own attributes to satisfy the needs of customers.

The share of children's products to total products has increased from 3.49 per cent in 1990-91 to 9.88 per cent in 2001-2002. The sum assured has also increased from 6.14 per cent to 7.71 per cent. It reveals that the LIC has been very sensitive towards meeting the special needs of the customers.

6. **Clean Up Needs :**
   After death, ritual ceremonies, payment of wealth taxes and income taxes are certain requirements which decrease the amount of funds of the family members. The LIC has come to the rescue of such requirements. Multipurpose policies and capital redemption policies fulfil clean-up needs. These policies have not been closed down in 1990-91. The mortgage redemption policy has been less than thousand. The sum assured has declined Rs. 16.50 crore in 1990-91 to Rs. 2.02 crore in 1999-2000.

Product Related Strategies

Product management involves product related strategies. It includes positioning, packaging, labelling, branding, product line and product support services. Producer has to decide the competitive position in the market. Positioning means developing the image that a product projects in relation to competitive products. It follows other strategies of products.

Positioning :

Marketer tries to solidify his advantages over the competitor. Company gives slogan such as "Intel Inside". Made in India or buy Indian; Positioning differentiates the products from each other with respect to performance, comfort and safety. The needs of the target market are also considered for positioning. It is the act of designing the company's offering and image to occupy a distinctive place in the target market. The purpose is to have a successful creation of a market-focused value proposition. Positioning is exercised by product quality, standardization, product service, product quantities and product size.

Packaging :

Marketing management has started giving importance to packaging. Packaging has been included under the new definition of product because the customers will be better satisfied. For example LIC's original product of whole life and endowment have not been able to satisfy the customers fully. Jeevan Rekha and Bima plus have included a large number of features to satisfy different needs of the customers. The short term insurance has been a small package to satisfy the needs of small customers. It has been realized by the marketers that "an unsatisfied market grid segment and an opportunity to pack several items together as one product." Thus, the LIC has issued new products as packaging of old products. The packaging in service industry has wider meaning of serving a larger needs of customers.

There has been differences between packing and packaging. The former is concerned with protection and the latter with promotion. In LIC, the packaging is more relevant as it meets different needs of the customers, which are promoted by one product. "It must meet a finite set of conditions, serve in some definite climate and function for a specific period of time."

The LIC has issued different products in different form under one package of the product. "Packaging is primarily a promotional device, its elements must attract consumer's attention, hold their interest and build their desire to buy."

Jeevan Rekha has been introduced in March 2003 and Bima plus was introduced. It is a unit linked insurance plan offering an excellent investment option. The portfolio management is done extremely well.

The LIC has considered packaging after 2000 only to compete with private players. New Jana Raksha Policy, Jeevan Shree, Jeevan Sanchay, Marriage Educational Annuity, Children's Money Back, Jeevan Kishor, Jeevan Chhaya etc. have been some of the examples of packaging of LIC products. They have been continuously increasing as is clear from the previous analysis.

Jeevan Mitra Policy has been fluctuating but Jeevan Mitra - Triple Cover Policy has been increasing. Both of them has crossed the level of Rs. 5000 crore under about 800 thousand policy. Jeevan Surabhi has increased to the tune of Rs. 7826.60 crore in 2001-2002 under 1135 thousand policy Jeevan Anand was introduced in 2001-2002. The total packaging products have increased from 470 thousand in 1990-91 to 2340 thousand in 2000-2001. The sum assured has increased to the tune of Rs. 15881.33 thousand in 2001-2002. Introduction of Jeevan Mitra - Triple Cover and Jeevan Anand has demonstrated that the LIC is very particular to increase the packaging symbol for meeting multiple needs of the customers.

Labelling :

Labelling is another product related strategy. It is closely related to packaging. It is a part of product that carries information about the product and the sellers. Brand label is brand alone. Descriptive level gives objective information and grade level identifies the product's judged quality. Labelling may be mandatory, voluntary and discretionary. Nutrition labelling discloses nutritional contents of the product. Label promotes the product through its attractive graphics. The policy form of LIC indicates the values of the product. It identifies, grades and describes the product. It is realized that the policy form is outmoded, it needs redesigning and proper labelling. On 50th anniversary of LIC, the Chairman of LIC introduced "Bima Gold" policy on September 1, 2005. It is a low cost protection plan with return of 15 percent of sum assured at the end of 4th and 8th year. The policy continues even if premium is not paid for three years after continuation of 4 years.

Branding :

The Life Insurance Corporation of India was established in 1956 and has been functioning as monolithic corporation till 2000 when the Insurance Regulatory Development Authority Act was passed which authorized private insurers to enter in the life insurance business. The Life Insurance Corporation of India (LIC) has been routinely functioning selling traditional product as whole life and endowment. It got the image of life insurer. Now it has entered in the competition as LIC (life insurance). Thus, the LIC has taken the name of life insurance. It has developed brand equity. It should continue so in future in the competitive market.

Product Line Policy

Product line is product proliferation having high selectivity by the customers under increasingly competitive conditions. It offers greater and greater product variety for meeting consumer sophistication with increasing market segmentation. Product line is the better alternative for meeting the product life cycle conditions. Sometimes change in price, promotion and place may convert unprofitable items into profitable products. It is advisable to drop some products for enhancing new profitable products. Management analyses the likely effect of adding to the line on the profits of existing line members. The product line policy is described in detail in the section of product diversification in the chapter of Brand Management.

Product Support Service :

Product support service includes interior decorating and installation. The LIC has to consider how post sale services should be provided to the customers. The agents and development officers have to educate the customers the advantages and new uses of new product (life policy). There may be credit service, warranty and other services to the policyholders e.g. nomination, transfer, loan, surrender value etc. It has been discussed under promotion chapter.

Table 1

Core Product of LIC under Managerial Dimension

A. Whole Life Assurance

Year	Number of Policies in Thousand				(Sum Assured in Crore Rs.)			
	Whole life	Convertible whole life	Whole life Limited	Total	Whole life	Convertible whole life	Whole life Limited	Total
1990-91	14.0	29	92	135	77.35	149.44	473.62	700.41
1991-92	13.0	94	30.0	137	94.67	615.87	206.62	917.16
1992-93	11.0	106	20.0	137	85.17	729.14	163.19	977.50
1993-94	11.0	129	16.0	156	85.95	896.64	122.75	1015.34
1994-95	7.0	74	11.0	92	55.80	434.86	101.47	592.13
1995-96	5.0	35	6.0	46	42.94	198.16	66.47	307.57
1996-97	5.0	27	7.0	39	46.69	165.74	68.71	281.14
1997-98	3.0	21	5.0	29	38.70	135.28	73.31	247.29
1998-99	2.0	10	18.0	30	26.75	103.65	143.19	273.59
1999-2000	2.0	7	6.0	15	25.73	93.29	101.44	220.46
2000-01	2.0	9	6.0	17	34.99	126.42	142.39	303.80
2001-02	3.0	24	6.0	33	48.86	291.20	303.72	643.78

Source : LIC Annual Reports & Accounts 1990-91 to 2002-2003

Note : * Includes with profit and without profits.

** These policies are without profit.

*** The LIC has stopped publishing diversified data after 2001-2002.

Table 2

Core Product of LIC under Managerial Dimension

Endowment Assurance

Year	Number of Policies in Thousand			(Sum Assured in Crore Rs.)		
	Endowment	Double Endowment	Total	Endowment	Double Endowment	Total
1990-91	3778	-	3778	9,538.92	0.73	9,539.65
1991-92	3719	-	3719	11,108.98	0.20	11,109.18
1992-93	3671	-	3671	11,053.27	0.50	11,053.77
1993-94	3457	-	3457	10,947.82	49.17	10,996.99
1994-95	2939	-	2939	10,002.98	0.17	10,003.15
1995-96	3233	-	3233	10,699.26	0.44	10,699.70
1996-97	3583	-	3583	12,311.47	0.19	12,311.66
1997-98	3847	-	3847	14,079.90	0.43	14,083.33
1998-99	4307	-	4307	17,385.96	0.22	17,386.18
1999-2000	5117	-	5117	22,767.86	2.17	22,769.06
2000-01	6651	-	6651	31,496.13	2.28	31,498.41
2001-02	6904	-	6904	34,699.91	2.93	34,702.84

Source : As given earlier

Note : * Includes with profit and without profits.
** These policies are only without profit.
*** The LIC has stopped publishing diversified data after 2001-2002.
(-) Less than Thousand.

Table 2A

Comparative Analysis of Core Products and Total Products

Year	Number of Policies in Thousand					(Sum Assured in Crore Rs.)				
	Whole life	Endowment	Total	Total Product	% of Core Product to total product	Whole life	Endowment	Total	Total Product	% of Core Product to total product
1990-91	135	3778	3913	8645	45.26	700.41	9539.65	10240.06	28,139.07	36.39
1991-92	137	3719	3856	9238	41.77	917.16	11109.18	12026.34	32,064.44	37.51
1992-93	137	3671	3808	9958	38.24	977.50	11053.77	12031.27	35,956.82	33.46
1993-94	156	3457	3613	10726	33.68	1015.34	10996.99	12012.33	41,813.83	28.73
1994-95	92	2939	3031	10875	27.87	592.13	10003.15	10595.28	55,228.50	19.18
1995-96	46	3233	3279	11021	29.75	307.57	10699.70	11007.27	51,815.54	21.24
1996-97	39	3583	3622	12269	29.52	281.14	12311.66	12592.80	56,740.50	22.19
1997-98	29	3847	3876	13311	29.12	247.29	14080.33	14327.62	63,617.69	22.52
1998-99	30	4307	4337	14843	29.22	273.59	17386.18	17659.77	75,316.27	23.45
1999-2000	15	5117	5132	16977	30.23	220.46	22769.06	22989.52	91,214.25	25.20
2000-01	17	6615	6668	19656	33.92	303.80	31498.41	31802.26	34,771.62	25.49
2001-02	33	69.4	6937	22491	30.84	643.78	34702.84	35346.62	192,572.26	18.35

Note : LIC has stopped supplying classified data after 2001-2002.

Table 3

LIC products for Underprivileged Class

Year	Sum Assured in Crores of Rs.		Policies in Thousand			
	New Jana Raksha		Total Product		% of PUPC to Total Product	
	Policies	Sum Assured	Policies	Sum Assured	Policies	Sum Assured
1990-91	385	532.89	8645	28139.07	4.45	1.80
1991-92	643	909.87	9238	32064.44	6.96	2.80
1992-93	630	934.97	9958	35956.82	6.33	2.60
1993-94	698	1033.54	10726	41813.83	6.50	2.47
1994-95	908	1305.88	10875	55228.50	8.36	2.37
1995-96	957	1375.39	11021	51815.54	8.68	2.65
1996-97	1143	1666.05	12260	56740.50	9.32	2.93
1997-98	1204	1847.95	13311	63617.69	9.05	2.90
1998-99	1327	2378.84	14843	75316.27	8.94	3.16
1999-2000	1406	2843.38	16977	91214.25	8.28	3.12
2000-01	1825	4469.21	19656	124771.62	9.28	3.58
2001-02	2482	8781.73	22491	192572.26	11.03	3.52

Note : (i) New Jana Raksha Policies are With profit.

(ii) The LIC has stopped publishing classified data after 2001-2002.

Table 4

Group Insurance under Social Security Group Schemes

(Lives in Thousand)

Year	Lives Under SSGG		Total Group Insurance		SSGS as % of Group Insurance	
	New Schemes	Total Lives Covered	New Schemes	Total Lives	New Schemes	Total Lives
1990-91	521.87	521.87	1161.00	11289.00	44.95	46.27
1991-92	1942.91	2199.87	1947.88	2316.58	99.75	94.96
1992-93	1517.47	3417.80	2680.47	3557.43	56.61	96.07
1993-94	701.21	3705.49	958.00	3894.09	73.20	95.16
1994-95	294.09	4330.57	485.00	19547.00	60.64	22.15
1995-96	396.33	4246.62	818.00	20729.00	48.45	20.49
1996-97	991.33	4935.03	1208.00	19281.00	82.06	25.60
1997-98	526.81	5019.94	943.00	20195.00	55.87	24.86
1998-99	254.42	4900.24	531.00	19556.00	47.91	25.06
1999-2000	405.64	4949.99	495.00	21239.00	81.95	23.31
2000-01	335.05	4952.53	395.00	19594.00	84.82	25.28
2001-02	663.35	5009.70	1036.35	22188.00	64.00	22.58
2002-03	665.88	5412.47	1228.88	21045.00	54.19	25.72

Note : Social Security Group Schemes (SSGS).

Table 4A

Products for Substandard Lives

Policies in Thousand **Sum Assured in Crore Rs.**

Year	Jeevan Adhar		Asha Deep		Jeevanm Viswas		Jeevanm Asha		Total Product under substantial Lives		%age of Total Product	
	Policies	Sum Assured	Policies	Sum Assured	Policies	Sum Assured	Policies	Sum Assured	Policies	Sum Assured	Policies	Sum Assured
1995-96	2	21.12	175	1362.34	-	-	-	-	375	1383.46	3.40	2.67
1996-97	2	19.52	112	886.11	-	-	-	-	312	905.63	2.54	1.60
1997-98	1	10.44	61	517.51	-	-	147	987.86	209	1515.81	1.57	2.38
1998-99	1	14.62	55	474.62		-	1	13.54	57	502.78	0.38	0.67
1999-00	1	15.88	53	448.00	1	10.24	1	14.51	56	488.63	0.33	0.53
2000-01	1	14.12	47	489.10	1	7.66	1	12.01	50	522.89	0.25	0.42
2001-02	1	15.15	39	423.47	1	6.61	1	14.02	42	459.25	0.19	0.24

Source : LIC Annual Reports and Accounts.

Note : These policies are with profit policies

Table 5

Progress of Term Insurance Product

Policies in Thousand **Sum Assured in Crore Rs.**

Year	Two Years Temporary		Convertible Term Insurance		Bima Kiran		Bima Sandesh		Nav Prabhat		Total Term Insurance	
	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.
1990-91	-	7.57	1	4.43	-	-	30	205.01	-	-	31	217.01
1991-92	-	3.54	-	3.32	-	-	32	239.73	-	-	32	246.59
1992-93	-	6.97	3	37.15	-	-	53	411.82	-	-	56	455.94
1993-94	1	12.84	4	43.00	-	-	56	420.11	-	-	61	475.95
1994-95	-	7.12	2	26.11	1926	19366.71	17	115.83	-	-	1945	19515.83
1995-96	-	4.91	-	4.34	1097	10944.84	20	64.69	-	-	1117	11018.06
1996-97	-	4.88	-	3.14	965	9441.15	7	51.78	-	-	972	9500.45
1997-98	1	6.41	-	2.43	1011	9759.62	11	55.33	-	-	1023	9823.75
1998-99	1	10.27	-	3.51	1140	11739.42	8	75.68	-	-	1149	11828.88
1999-00	1	7.64	1	6.58	1107	12299.66	9	101.10	7	72.24	1125	12487.22
2000-01	-	6.35	-	3.18	1527	16651.64	14	161.00	1	11.14	1542	16833.31
2001-02	1	12.32	-	9.46	1309	14417.69	11	159.00	-	-	1321	14598.67

Source : LIC Annual Report and Accounts.

Note : 1. (-) indicates policies less than one thousand.
2. These policies are without profits.

Table 6

Progress of Family need products of LIC

Policies in Thousand | **Sum Assured in Crore Rs.**

Year	Whole Life		Term Insurance		Total		Total LIC Product		% of Total Products of LIC					
									Whole Life		Term Insurance		Total Policy Needs	
	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.
1990-91	135	700.41	31	217.01	166	917.42	8645	28139.07	1.56	2.49	0.35	0.77	1.92	3.26
1991-92	137	917.16	32	246.59	169	1163.75	9238	32064.44	1.48	2.86	0.35	0.77	1.83	3.63
1992-93	137	977.50	56	455.94	193	1433.44	9958	35956.82	1.38	2.72	0.56	1.26	1.94	3.99
1993-94	156	1015.34	61	475.95	217	1491.29	10726	41813.83	1.45	2.43	0.57	1.14	2.02	3.57
1994-95	92	592.13	1945	19515.83	2037	20107.96	10875	55228.50	0.85	1.07	17.89	35.34	18.73	36.41
1995-96	46	307.57	1117	11018.06	1163	11325.63	11021	51815.54	0.42	0.59	10.14	21.26	10.55	21.86
1996-97	39	281.14	972	9500.95	1011	9782.09	12269	56740.50	0.32	0.50	7.51	16.74	8.24	17.24
1997-98	29	247.29	1023	9823.75	1052	10071.04	13311	63617.69	0.22	0.39	7.69	15.44	7.90	15.83
1998-99	30	273.59	1149	11828.88	1179	12102.47	14843	75316.27	0.20	0.36	7.74	15.71	7.94	16.07
1999-2000	15	220.46	1125	12487.22	1140	12707.68	16977	91214.25	0.09	0.24	6.63	6.69	13.66	13.93
2000-01	17	303.80	1542	16833.31	1559	17137.11	19656	124771.62	0.09	0.24	7.84	13.49	7.93	13.73
2001-02	33	643.78	1321	14598.47	1354	15242.25	22491	192572.26	0.15	0.33	5.87	7.58	6.02	7.92

Table 7

LIC products for Investment Needs

Policies in Thousand **Sum Assured in Crore Rs.**

Year	Money Back		Jeevan Saral		Jeevan Shree		Investment Needs		Total Product		% to Total	
	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.
1990-91	3439	12979.08	-	-	-	-	3439	12979.08	8645	28139.07	39.78	46.12
1991-92	3513	13567.94	-	-	-	-	3513	13567.94	9238	32064.44	38.03	42.31
1992-93	4115	16401.67	-	-	-	-	4115	16401.67	9958	35956.82	41.32	45.60
1993-94	4271	17025.18	-	-	-	-	4271	17025.18	10726	41813.83	39.82	40.72
1994-95	3443	15588.69	-	-	7	411.76	3450	16000.45	10875	55228.50	31.72	28.97
1995-96	3638	16396.08	-	-	23	1320.34	3661	17716.42	11021	51815.54	33.22	34.19
1996-97	4247	19426.77	-	-	25	1396.07	4272	20822.84	12260	56740.50	34.85	36.70
1997-98	4220	19662.71	-	-	34	1869.89	4254	21532.60	13311	63617.69	31.96	33.85
1998-99	4023	18937.09	-	-	57	3117.51	4080	22054.60	14843	75316.27	27.49	29.28
1999-00	4383	20861.32	1	-	93	4827.34	4476	25688.66	16977	91214.25	26.37	28.16
2000-01	4066	21158.72	-	-	236	13200.09	4302	37358.81	19656	124771.62	21.89	29.94
2001-02	3771	23202.67	-	-	1104	60212.66	4875	83415.33	22491	192572.26	21.68	43.32

Table 8

Percentage to Total products (Comprehensive Old Age)

Year	Total Provision		Term Assurance		Whole Life		Old Age provision by LIC	
	Policies	Sum Assured	Policies	Sum Assured	Policies	Sum Assured	Policies	Sum Assured
1990-91	45.61	37.13	0.35	0.77	1.56	2.49	43.70	33.91
1994-95	45.76	54.52	17.89	35.34	0.85	1.07	27.02	18.11
2001-2002	42.63	29.71	5.87	7.58	0.15	0.33	36.61	21.80

Table 9

Progress of old age need products of LIC

Policies in Thousand **Sum Assured in Crore Rs.**

Year	Endowment		Bima Nevesh		Bhavishya Jeevan		Jeevan Sanchaya		Total old Age Products		Total Product		% to Total Products	
	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.
1990-91	3778	9539.65	-	-	-	1.58	-	-	3778	9541.23	8645	28139.07	43.70	33.91
1991-92	3719	11109.18	-	-	-	1.46	-	-	3719	11110.64	9238	32064.44	40.26	34.65
1992-93	3671	11053.77	-	-	-	1.33	-	-	3671	11055.10	9958	35956.82	36.86	30.75
1993-94	3457	10996.99	-	-	-	1.13	-	-	3457	10998.12	10726	41813.83	32.23	26.29
1994-95	2939	10003.15	-	-	-	0.84	-	-	2939	10003.99	10875	55228.50	27.02	18.11
1995-96	3233	10699.70	-	-	-	0.39	-	-	3233	10700.09	11021	51815.54	29.33	20.65
1996-97	3583	12311.66	-	-	8	45.60	46	287.39	3637	12644.65	12260	56740.50	29.67	22.29
1997-98	3847	14080.33	-	-	-	0.76	255	1356.40	4102	15437.45	13311	63617.69	30.82	24.27
1998-99	4307	17386.18	45	197.79	4	17.42	651	3358.31	5007	20761.91	14843	75316.27	33.73	27.57
1999-00	5117	22769.06	83	399.58	4	20.81	844	4470.35	6048	27260.22	16977	91214.25	35.62	29.89
2000-01	66.51	31498.41	210	1561.06	-	1.85	837	5712.11	7698	37212.37	19656	124771.62	39.16	29.82
2001-02	6904	34702.84	367	3393.06	-	3.55	963	7267.55	8234	41973.94	22491	192572.26	36.61	21.80

Source : LIC Annual Report and Accounts

Note : (-) Indicates less than thousand.

Table 10

Traditional Products for Children's Benefits

Policies in Thousand | **Sum Assured in Crore Rs.**

Year	Children Deferred		Anticipated		Marriage/ Educational		New Children Deferred		Children's Money Back		Total Traditional Products	
	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.
1990-91	36	185.98	9	82.08	94	271.90	2	11.59	-	-	141	551.55
1991-92	11	55.12	3	24.21	110	397.75	-	-	-	-	124	459.08
1992-93	5	29.84	2	20.81	112	408.48	-	-	-	-	119	459.13
1993-94	5	43.07	2	18.78	130	496.39	-	-	-	-	137	558.24
1994-95	3	22.96	2	15.37	135	540.63	-	-	156	935.31	296	1514.17
1995-96	8	20.91	1	9.96	157	637.12	-	105	293	1583.50	459	2252.54
1996-97	2	1317	1	9.80	157	647.70	-	77	233	1259.88	393	1925.52
1997-98	2	15.40	1	7.91	198	867.80	-	-	245	1365.26	446	2256.37
1998-99	2	13.49	-	-	263	1215.07	-	-	288	1621.92	553	2850.18
1999-00	2	13.13	-	-	355	1736.26	-	-	327	1907.95	684	1907.95
2000-01	2	23.53	-	-	544	2805.67	-	-	344	2504.60	890	5333.80
2001-02	4	62.18	-	-	660	3547.43	-	-	839	7040.89	1503	10650.50

Source : LIC Annual Reports & Accounts

Note : 1. (-) indicates less than one thousand.

2. (*) is without profit policy.

3. Children's Money Back started in 1994-95.

4. New Children's Deferred Assurance has been very low.

Table 10A

New Products for Children's Benefits

Policies in Thousand | **Sum Assured in Crore Rs.**

Year	Jeeven Balya		Jeevan Kishor		Jeevan Chhaya		Jeevan Sukarna		Bal Vidya		Total of New Products		% of Total Products	
	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.
1990-91	1	6.05	149	1084.63	11	84.40	-	-	-	-	161	1175.08	1.86	4.18
1991-92	1	8.69	237	1154.83	84	419.06	-	-	-	-	322	1582.58	3.49	4.93
1992-93	-	3.12	220	1024.58	83	406.69	33	151.90	-	-	336	1586.29	3.37	4.41
1993-94	1	5.86	250	1114.60	77	383.98	25	102.67	-	-	353	1614.17	3.29	3.86
1994-95	-	2.13	236	1070.06	79	422.33	10	42.66	-	-	325	1537.18	2.90	2.78
1995-96	-	396	192	831.00	71	363.50	7	30.37	-	-	270	1228.87	2.45	2.37
1996-97	-	68	204	864.79	63	357.90	4	17.69	-	-	271	1241.06	2.21	2.19
1997-98	-	82	220	979.62	74	444.41	4	18.05	-	-	296	1442.90	2.22	2.27
1998-99	-	98	255	1201.20	99	626.16	9	45.58	-	-	363	1873.92	2.50	2.49
1999-2000	-	79	295	1509.34	145	949.59	5	28.29	-	1.71	445	2489.72	2.61	2.73
2000-01	-	55	433	2258.32	209	1483.39	5	28.32	-	1.71	647	3772.29	3.29	3.02
2001-02	-	122	471	2425.54	242	1728.85	6	34.39	-	3.23	719	4190.00	3.20	2.18

Table 10B

Total LIC Products for the Children's Benefits

Year	Traditional Products		New Products		Total Products for Children's Benefit		Total Product		% to Total Product	
	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.	Policies	S.A.
1990-91	141	551.55	161	1175.08	302	1726.63	8645	28139.07	3.49	6.14
1991-92	124	459.08	322	1582.58	446	2040.66	9238	32064.44	4.83	6.37
1992-93	119	459.13	366	1586.29	455	2045.42	9958	35956.82	4.57	5.69
1993-94	137	558.24	353	1614.17	490	2172.41	10726	41813.83	4.57	5.20
1994-95	296	1514.17	325	1537.18	621	3051.35	10875	55228.50	5.71	5.52
1995-96	459	2252.51	270	1228.87	729	3481.41	11021	51815.54	5.61	6.72
1996-97	393	1925.32	271	1241.06	664	3166.38	12269	56740.50	5.41	5.58
1997-98	446	2256.37	296	1442.90	742	3699.27	13311	63617.69	5.57	5.81
1998-99	553	2850.48	363	1873.92	916	4724.40	14843	75316.27	6.17	6.27
1999-2000	684	1907.95	445	2489.72	1129	4397.67	16977	91214.25	6.65	4.79
2000-01	890	5333.80	647	3772.29	1537	9106.09	19656	124771.62	7.82	7.30
2001-02	1503	10650.50	719	4190.00	2222	14840.50	22491	192572.26	9.88	7.71

Source : LIC Annual Reports and Accounts.

Table 11

LIC Products for Clean up needs

Year	Multipurpose		Mortgage Redemption	
	Policy	Sum Assured	Policy	Sum Assured
1990-91	-	1	1	16.50
1991-92	-	-	-	14.44
1992-93	-	-	-	14.55
1993-94	-	-	-	5.80
1994-95	-	-	17	115.83
1995-96	-	-	-	3.90
1996-97	-	-	-	2.09
1997-98	-	-	-	2.40
1998-99	-	-	-	3.36
1999-2000	-	-	-	2.02
2000-2001	-	-	-	3.06

Note : (-) indicates policy number less than one thousand.

विकास की ओर बढ़ते हुए भी हम विकास विहीन क्यों ? कारण ।

डॉ. ओम प्रकाश तोषनीवाल,
पूर्व उपाचार्य, एस. एस. वी. कालिज, हापुड, (मेरठ विश्वविद्यालय)

54 वर्षों के नियोजित आर्थिक विकास के बाद भी देश के लगभग 30 करोड़ लोग अभी भी अपनी मूलभूत आवश्यकताओं की पूर्ति की ओर से वंचित रहे हैं, आखिर ऐसा क्यों ? क्या यह सही नहीं है कि समाज, नियोजन के बावजूद आर्थिक, सामाजिक व राजनीतिक दृष्टि से अपेक्षित आगे नही बढ़ रहा है । समाज में चारों ओर फैला भ्रष्टाचार, चोरी, डकैती और लूट, व्याभिचार और बलात्कार की घटनाऐं दैनिक समाचार-पत्रों में भरे रहते हैं । तीन-चौथाई आबादी को अपने अंचल में समेटे हमारे ये साढ़े पांच लाख गांव धीरे-धीरे अब राजनीति के अखाड़े बन रहे हैं, जहां शताब्दियों से व्याप्त भाईचारा सहयोग और सहकारिता के स्थान पर अब आपसी प्रतिस्पर्धा, विद्वैष, वैमनस्य और जात-पात की संकीर्ण मनोवृत्ति तेजी से पनप रही है। आर्थिक मोर्चे पर गरीबी, बेरोजगारी और महंगाई ने बेचारे गरीब का जीना मुश्किल कर रखा है। हालात शहरों और कस्बों के भी अच्छे नहीं है। गांवों व कस्बों की बात छोड़िये, नगरों और महानगरों में भी बिजली, पानी, आवास, स्वास्थ्य व सफाई की समस्यायें विकराल रूप धारण करती जा रही हैं। लगता है मानों जीवन की सरसता ही समाप्त हो गई है। गांवों से रोजी-रोटी की तलाश में नगरों की ओर पलायन करने वाले पढ़े-लिखे ग्रामीण युवाओं के कारण जहां एक ओर गांव प्रतिभा विपन्न होते जा रहे हैं वहां दूसरी ओर इससे शहरों और नगरों की समस्यायें भी बढ़ी हैं। झुग्गी झोपड़ी के रूप में एक ऐसी अजीबो गरीब संस्कृति पैदा हो रही है जो अनेकों अनैतिक कार्यों की जननी है। विचारणीय प्रश्न तो यह है कि विकास के नाम पर इतना कुछ करने के बाद भी यह विषम स्थिति क्योंकर है ? जाहिर है कि हमारी विकास की यात्रा में अवश्य ऐसे कुछ अवरोधक खड़े हो गये हैं जिन्होंने हमारे सामने आर्थिक समस्याओं के साथ-साथ कई अन्य समस्याओं को ला खड़ा किया है। प्रस्तुत लेख में ऐसी ही कुछ समस्याओं को उठाया गया है तथा ऐसे मूलभूत कारकों पर प्रकाश डाला गया है जो अवरोधक के रूप में सामने आते रहे हैं। यह सुनिश्चित है कि ऐसे अवरोधकों पर करारी चोट किये बिना हम अपने विकास की मंजिल पर पहुंच नहीं पायेंगे।

मूलभूत कारक :

1. सरकार का चिन्तन

स्वतन्त्रता के बाद का कृषि विकास विशेष रूप से साक्षी है, सरकार के अव्यवहारिक चिन्तन के लिए। भारतीय कृषि का अटूट सम्बन्ध प्रकृति के साथ है और हमारी कृषि का संरचनात्मक ढांचा इस प्रकार का है कि जहां 15 प्रतिशत कथित किसान 66 प्रतिशत कृषि योग्य भूमि पर अधिकार किए बैठे हैं। क्या कृषि सम्बद्ध नीतियों का निर्माण करते समय सरकार को ये दोनों बातें विचार में नहीं लेनी थीं? लेकिन ऐसा नहीं हुआ। जिस भूमि सुधार कार्यक्रम को स्वतन्त्रता से पूर्व न केवल आर्थिक विकास के निमित्त वरन् सम्यक सामाजिक परिवर्तन के लिए भी आवश्यक समझा गया था। अब उन्ही के बारे में यह धारणा बन चुकी है कि गांवों के वर्तमान परिवेश एवं राजनैतिक इच्छाशक्ति के बीच उन सुधारों को लागू करना सम्भव नहीं है। देश में ऊर्जा साधनों की पर्याप्त कमी के होते हुए, ऊर्जा के बारे में समूचा चिन्तन सतही ही कहा जायेगा। उसी का परिणाम रहा कि बायोगैस के रूप में ऊर्जा साधन का जो प्रचार किया गया व्यवहार में ऐसा देखने में नहीं मिला। ऐसी ही स्थिति महंगाई को नियंत्रित करने के बारे में भी रही। बात औद्योगिक नीति की हो या उपभोक्ता संरक्षण की, इनकी असफलता इस बात की द्योतक रही कि इनके बारे में हमारा पूरा चिन्तन सतही रहा। मर्चेन्टस चेम्बर प्रेक्षागार में क्राइस्ट चर्च कालिज के सेन्टर फार कम्युनिकेशन एण्ड मैनेजमैंट के तृतीय दीक्षान्त समारोह में 14 जुलाई 1993 को मुख्य अतिथि पद से बोलते हुए भूतपूर्व केन्द्रीय मंत्री श्री बसन्त साठे ने कहा था कि 46 वर्षों के दौरान रानीतिज्ञों ने देश की मूल समस्याओं से जूझने के बजाय हथकण्डों के सहारे सत्ता पर ज्यादा ध्यान दिया। वस्तुतः इस सतही चिन्तन ने हमारी सभी आर्थिक समस्याओं को बढ़ाया है।

2. सुविचारित नीतियों का अभाव

नीतियों का निर्माण चिन्तन के साथ जुड़ा हुआ है। 54 वर्षों के नियोजन के बाद भी अपेक्षित हम वह कुछ नही प्राप्त कर सके जो कि हम करना चाहते थे। देश की गरीबी दूर हो, लोगों को रोजगार मिले, आम जनता की न्यूनतम आवश्यकताये पूरी हों, ये सभी लक्ष्य अधर में लटके रह गये। तब नियोजन की सफलता के बारे में संदेह होना स्वाभाविक ही है। खेद यह भी है कि सरकार ने प्राथमिकता के क्रम में देशवासियों की समस्याओं की सही जानकारी रखते हुए भी उनके निदान के लिए वैसी नीति नहीं अपनायी जैसी कि उसे अपनानी चाहिए थी।

यही स्थिति कृषि व औद्योगिक क्षेत्रों की है। खाद्यान्न का उत्पादन पिछले 50 वर्षों में तिगुना हो जाने के बावजूद और हरित क्रान्ति पर गर्वित

होने के बाद भी कृषि की समस्यायें मोटे तौर पर ज्यों की त्यों हैं, ऐसा क्यों? बात चाहे भू-स्वामित्व की हो या खेतों की लिए बीज, खाद और पानी की, कृषि के लिए वित्त आपूर्ति की या फिर कृषि शोध के परिणामों को खेतों तक पहुंचाने की, सभी जगह निर्मित नीतियां वांछनीय प्रभाव न डाल सकी। स्पष्ट है कि ऐसा सब कुछ हमारी कृषि नीतियों में खोट के कारण है ।

रही उद्योगों की बात, स्वतन्त्रता के बाद बहुत कुछ प्रगति की है, देश ने, इस मोर्च पर। क्या कुछ हम नहीं बना रहे अपने यहां, जो अमेरिका, ब्रिटेन, जापान जैसे विकसित देश बना रहे हैं। लेकिन अपने देश की परिस्थितियों के बीच जहां श्रम शक्ति का बाहुल्य है, संकुचित वित्तीय साधन हैं, तीन चौथाई आबादी गांवों में रहती है, 70 प्रतिशत आबादी खेती से जुड़ी है, वहां क्या लघु एवं कुटीर उद्योग हमारे आधार नहीं होने चाहिए थे ? बात यहां भी नीति निर्माण की ही आती है ।

देश की अर्थव्यवस्था संकट में क्योंकर फंस गई? क्या अर्थव्यवस्था में बिगाड़ साल दो साल का था ? यह स्थिति क्योंकर बनी? क्या ये सब कुछ सरकार की गलत नीतियों का परिणाम नहीं था? हमारा कहना है कि सन् नब्बे के दशक में जिन नीतियों पर अर्थव्यवस्था संचालित की गई, वे देश को दिवालियापन के दरवाजे पर खड़ा करेंगी, क्या इसकी अनुभूति सरकार को नहीं हो सकती थी? यथार्थ यह है कि सरकार ने अपने राजनीतिक स्वार्थ में जानबूझकर इस स्थिति को आमन्त्रित किया था। आज हर वस्तु के दाम आसमान छू रहे है। शेयर बाजार को देश की असली बाजार के रूप में प्रदर्शित किया जा रहा है। जबकि हमारी आंतरिक अर्थव्यवस्था इस शेयर बाजार की अर्थव्यवस्था से काफी अलग हैं। शेयर बाजार टूटना हमारी अर्थव्यवस्था का टूटना कदापि नही है व शेयर बाजार का इतना भयंकर उछाल आना हमारी असली अर्थव्यवस्था मे इतना उछाल आना नही है।

3. आर्थिक चिन्तन पर राजनीति हावी

हम यह मानते हैं कि आर्थिक, सामाजिक एवं राजनीतिक चिन्तन में गठजोड़ है और इस नाते इनमें संतुलित तालमेल रहना चाहिए। देश का आर्थिक विकास हमारे राजनीतिक चिन्तन से प्रभावित होगा ही, इसमें दो मत नहीं हैं। यह आर्थिक विकास हमारी सामाजिक परम्पराओं और चिन्तन से भी प्रभावित होगा, यह भी सही है। लेकिन जब आर्थिक चिन्तन पर राजनीति हावी हो जाए, समस्यायें सामने आयेंगी हीं। देश में पिछले 50 वर्षों से ऐसा ही चल रहा है। प्रथम प्रधानमंत्री पं. जवाहरलाल नेहरू के कार्यकाल की बात तो छोड़ दीजिए, बाकी श्रीमती गांधी से लेकर आज तक हमारी आर्थिक नीतियों पर राजनीति हावी रही है। सच्चाई यह है कि 1991, से पांच वर्ष तक की सरकार की स्थिरता देने के लिए वोट बैंक का निर्माण हमारी अर्थनीति का आधार रहा है। हमने अपनी आर्थिक समस्याओं को राजनीति का चश्मा चढ़ाकर न केवल देखा है वरन् उनका समाधान भी राजनीति का चश्मा लगाकर ही किया है। ताजा उदाहरण देकर हम अपने कथन की पुष्टि किए देते हैं। कथित नई आर्थिक नीति के पहलू के रूप में उदारीकरण की जो बात सामने आयी है उसके पीछे भी एक नया वोट बैंक तैयार करने की नीति है। 'इस आर्थिक नीति के केन्द्र में स्वतन्त्रता के बाद पैदा हुआ वह मध्यम वर्ग है जिसके बारे में सोचना है कि वह विशुद्ध रूप से उपभोक्तावाद का समर्थन करेगा। 'इसलिए देश में उदारीकरण द्वारा उपभोक्तावाद को प्रश्रय देकर इस वर्ग में जनाधार आसानी से तैयार करने की सोच रही। उधर 1996-97 के वित्त वर्ष के प्रथम चार महीनों के लिए जो अन्तरिम बजट पेश किया गया था। वहां भी अर्थनीति के बजाय राजनीति अर्थात् भावी चुनावों को केन्द्र में रखा गया ।

4. निजीकरण की ओर अन्धी दौड़

नई आर्थिक नीति में सार्वजनिक उद्योगों के निजीकरण की जोरदार वकालत की गई है। यह सही है कि निजीकरण के अपने लाभ हैं, लेकिन हम यह क्यों भूलते हैं कि उसकी अपनी सीमायें भी हैं । आज से 50 वर्ष पूर्व हमने जिस मिश्रित अर्थव्यवस्था को अपनाया था उसके पीछे हमारी संवैधानिक वचनबद्धता थी। प्रश्न यह है कि निजीकरण की ओर इस अंधी दौड़ में क्या हमारी वह वचनबद्धता बनी रह सकेगी। देश की गरीबी, बेरोजगारी, आर्थिक विषमता, पिछड़ापन, सीमित संसाधन, जनसंख्या वृद्धि की विस्फोटक स्थिति और सभी के प्रति न्याय जैसे मूल प्रश्न क्या आज अपनी प्रासंगिकता खो चुके हैं ? और यदि नहीं, जैसा कि कहा जायेगा, तो फिर निजीकरण का नारा किसके लिए ? वस्तुतः समस्या का समाधान अंधाधुंध निजीकरण में नहीं है, वरन् सार्वजनिक क्षेत्र में नीतिगत परिवर्तन करके सुधार करने में है। क्या यह सरकार इस मोटी सी बात को नहीं समझती? लेकिन उस पर अन्तर्राष्ट्रीय मुद्राकोष और विश्व बैंक का दबाव इतना अधिक रहा कि वह स्वतंत्र निर्णय लेने में पंगु ही बन गई थी। वस्तुतः समस्या समाधान मरीज को मारने में नहीं, मर्ज को मारने में है। सवाल और भी हैं, निजीकरण की ओर दौड़ने से पूर्व हमें उन पर विचार करना था। पहली बात तो यह है कि क्या आर्थिक दृष्टि से देश उस स्थल पर पहुंच गया है जहां उससे आगे सार्वजनिक क्षेत्र की भूमिका समाप्त हो गई है ? दूसरे, क्या निजीकरण इतना सहज हो गया है कि वह अकेले ही आर्थिक विकास को पूर्ण गति प्रदान कर सकेगा ? इनसे भी आगे महत्वपूर्ण प्रश्न तो यह है कि क्या निजी क्षेत्र सभी के प्रति न्याय देने की हमारी सवैधानिक वचनबद्धता को पूरा कर सकेगा ? ऐसे और भी प्रश्न सामने आयेंगे, जिनमें पूंजी और श्रम के सम्बन्धों, विशेषकर औद्योगिक अशान्ति को

इंगित किया जा सकता है। ऐसी परिस्थितियों के बीच फिर निजीकरण की ओर बढ़ने की इतनी उतावली क्यों रही ? सरकार को इसका उत्तर अभी भी देना है। निजीकरण में चूंकि आर्थिक सामाजिक क्षेत्रों की ओर सरकार की भूमिका सिमटती जायेगी, तब निःसन्देह कामगारों का शोषण बढ़ेगा। जहां राष्ट्रीयकरण की कमजोरियों के बीच निजीकरण की बात उभरकर सामने आती है, जैसा कि राष्ट्रीयकृत बैंकों के सम्बन्ध में, वहां भी हमें निजीकरण की बात सोचने से पूर्व राष्ट्रीयकरण की कमजोरियों को ही दूर करने के प्रयास करने चाहिए।

5. कार्य संस्कृति की ह्रास

जिस देश की संस्कृति में कार्य को पूजा के रूप में लिया गया हो, वहां उसके देशवासियों द्वारा कार्य से जी चुराना कुछ अटपटा सा लगता है। श्री गीता में अर्जुन को उपदेश देते हुए भगवान कृष्ण कहते हैं कि जीवन कर्म के लिए ही है। कर्म के अधिकार का लाभ उठाकर नित्य नूतन प्रगति करना जीवन है, कर्म छोड़कर बैठ जाना मृत्यु है। वस्तुतः 400 वर्षों के विदेशी शासन ने न केवल भारतीयों तो अकर्मण्य बनाया है वरन् काम के बीच छोटे बड़े का भेद करना भी सिखाया है। वही मनोवृत्ति स्वतन्त्रता के बाद उत्तराधिकार के रूप में देशवासियों को मिली है। उसी का परिणाम है कि आज दफ्तर का बाबू ही नहीं, उद्योग के श्रमिक और कथित विद्यामंदिरों के अध्यापक भी कम काम करने में विश्वास रखते हैं। इसके जो दुष्परिणाम हैं उन्हें देश आज भोग रहा है। क्षेत्र चाहे औद्योगिक हो या प्रशासनिक या फिर स्वस्थ और शिक्षा जैसे सामाजिक, सभी जगह कार्यरत लोगों की कार्यक्षमता मानक स्तर से काफी नीचे है। हमारे निजीकरण की ओर दौड़ने का यह भी एक कारण है। उद्योगों में कम उत्पादन, आयकर विभाग में व्याप्त भ्रष्टाचार, बढ़ती महंगाई, सभी क्षेत्रों में उत्पादकता में कमी उपभोक्ता शोषण, इन सभी के लिए किसी न किसी बिन्दु पर हमारी कार्य संस्कृति का ह्रास ही जिम्मेदार है। आज ऐसे शब्दों का जाल बुना जा रहा है जहाँ पर "Do not work hard work smat" की संज्ञा की जा रही है व सही कर्म लोगों का मनोबल गिराने का प्रयास हो रहा है।

6. विकास और प्रगति की हमारी अस्पष्ट अवधारणा

सभी आर्थिक क्रियाओं का सम्बन्ध नियोजन के साथ है और नियोजन विकास और प्रगति की अवधारणा से जुड़ा हुआ है। सन् 1952 में जब नियोजन का कार्य हाथ में लिया गया तब यह माना गया कि योजनाबद्ध विकास अपने आप में सामाजिक न्याय की गारन्टी है। लेकिन व्यवहार में ऐसा नहीं हुआ। विकास तो हुआ लेकिन विकास के फलों का लाभ जिस वर्ग को सबसे पहले पहुंचना चाहिए था वह या तो अछूता रह गया या फिर उसको सबसे कम लाभ मिला। इसका अर्थ यह हुआ कि सामाजिक न्याय के साथ विकास की जो अवधारणा हम नियोजन के पीछे लेकर चले थे उसे हमारे योजनाकारों ने बदल दी। इस सन्दर्भ में देश की कारोबारी राजधानी मुंबई को देखिए । विकास की चमक दमक आपको चारों ओर मिलेगी फिर चाहे भले ही असंतुलित हो। लेकिन मुंबई से सटा हुआ जिला है ठाणे इसके पालघर तालुके में करीब एक लाख आदिवासी रहते हैं उनकी जीवनधारा देखने से लगता है कि मानो विकास योजनाओं का स्पर्श भी इनको नहीं हो पाया है। विकास के लिए अरबों रूपये की विदेशी सहायता आई है, पर उसका लेशमात्र भाग भी इन तक नहीं पहुंचा है। अपने कथन की पुष्टि में हमने यह एक उदाहरण मात्र दिया है। विकास की स्थिति विभिन्न राज्यों के विभिन्न भागों में सर्वथा असन्तुलित रही है। अतः विकास के बारे में ये बिन्दु पहले स्पष्ट किये जाने चाहिए कि आखिर विकास का हमारा अर्थ क्या है ? विकास किसका ? विकास किस क्रम में ? और विकास किस कीमत पर ? अब यह बराबर अनुभव किया जा रहा है कि विकास की परिभाषा को पुनर्भाषित किया जाए व विकास की ऐसी रूपरेखा बनायी जाए जिसके केन्द्र में मानव और मानवीय गरिमा हो तथा विकास का आधार सब्सिडी नहीं मानवीय क्षमताएं और आवश्यकताएं हों।

अब हम 'प्रगति' पर आते हैं। हमारे योजनाकारों ने प्रगति का अर्थ भौतिक सुख सुविधाओं से लिया है। जबकि तथ्य यह है कि हमारी सांस्कृतिक परम्पराओं के बीच हमारा भौतिक सुख हमारे आध्यात्मिक चिन्तन से जुड़ा हुआ है। विशाल जनसंख्या, सीमित साधन, ग्रामीण संरचना, अशिक्षा और गरीबी इन सभी का निवारण, जहां तक अपने देश की बात है, सादा जीवन उच्च विचार, संतोष, सहयोग और सहकारिता जैसे आध्यात्मिक चिन्तन में निहित है। सभी को जीने का अधिकार दिये जाने की दृष्टि से तो ऐसा चिन्तन अपरिहार्य ही है। वस्तुतः भूल हमारे चिन्तन में रही, हमारे नियोजन में नहीं और हमारे नियोजन की असफलता इसलिए रही चूंकि हमारा चिन्तन ही अधूरा था। 'राष्ट्र भौतिक चिन्तन में भटक गया तो व्यक्ति एकांकी चिन्तन में। राष्ट्र ने भौतिक समृद्धि के बीच आध्यात्मिक चिन्तन की उपेक्षा की तो व्यक्ति ने उस समाज की ही अवहेलना की जो उसके अस्तित्व को निर्णायक रहा। अब हमें देखना होगा कि सभ्यता और विकास के नाम पर साधन सम्पन्न वर्ग द्वारा दूसरे ग्रामीण और निम्न वर्ग को लूटकर मौज मस्ती करने का उपनिवेशवादी रिश्ता अब आगे नहीं चलना चाहिए। ' इस संदर्भ में राष्ट्रपिता गांधी के विचार माननीय हैं, में अगर दैहिक सुखों में डूबे हुए आधुनिक बनावटी जीवन का विरोध करता हूं और अपने देश के नर-नारियों से सादा जीवन बिताने का आग्रह करता हूं तो केवल इसलिए कि मैं जानता हूं सादगी की तरफ लौटने के अलावा कोई ऐसा रास्ता नहीं है, जो हमें पतन के गर्त में गिरने से रोक सके।

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Whole life Plan - An ideal life insurance policy

Life insurance is not a pure investment proposition. It is multi dimensional in character; The true value of life insurance contract is determined not by the amount you pay but instead by the benefits you are eventually going to receive.Those who critise life insurance for its poor return totally ignore the cost of risk cover built in the premium payments.

A whole life plan provides life time risk cover as well as a permanent estate creation for his/her near & dear ones. Because under whole life plan the final death claim is invariably paid against every policy, because every policy, because every man must die sooner or later.

I prefer whole life plan not only it offers max cover at the most economical rate of premium, but also it provides the total security even for old age through cash value benefits. In any case, the final claim is payable at age 80 yrs (if the life assured survives) as per new rules of LIC. In case, the financial ned is temporary, one can take loan during his/her life. Moreover, Whole life policy is available in variety of forms particularly in respect of premium paying method. One can pay premium for a limited term from 5 to 55 years. The premium can be squeezed to a single premium, ideal for the purpose of payment as dowry. The flow of benefits of a whole life plan is summarized as per the following chart :

Presentation of limited payment whole life (Table 5)

Age : 35 years, Wealthy business man

T-T : 5-15, Sum assured : Rs. 10 lacs

Yearly premium : Rs. 44,445/-

Benefits Foccused :

Huge Estate creation - Free from creditors and any attachment Income tax free claim value

During life time High liquidity (Loan) at low rate of interest viz. 9%.

Enhanced bonus rate (142%) of Endowment till death

Premium payment limited to short span of 15 yrs in this case, i.e. During productive years of earning.

At age 80 policy proceeds are paid as maturity claim to the life assured himself as per new rules.

Whole Life Presentation (T-5)

Age : 35yrs, SA = 10 Lakhs, Term = 15, Annl. Prem. = 44,445/-

Pol.	Year	Age	Prem	Normal Death Benefit	Accidential Death Benefit	Maturity Benefit (SA + Bonus + FAB)
1	2006	35	44445	1071000	2071000	
2	2007	36	44445	1142000	2142000	
3	2008	37	44445	1213000	2213000	
4	2009	38	44445	1284000	2284000	
5	2010	39	44445	1355000	2355000	
6	2011	40	44445	1426000	2426000	
7	2012	41	44445	1497000	2497000	
8	2013	42	44445	1568000	2568000	
9	2014	43	44445	1639000	2639000	
10	2015	44	44445	1710000	2710000	
11	2016	45	44445	1781000	2781000	
12	2017	46	44445	1852000	2852000	
13	2018	47	44445	1923000	2923000	
14	2019	48	44445	1994000	2994000	
15	2020	49	44445	2065000	3065000	
16	2021	50	0	2136000	3136000	
17	2022	51	0	2207000	3207000	
18	2023	52	0	2278000	3278000	
19	2024	53	0	2349000	3349000	
21	2026	55	0	2491000	3491000	
22	2027	56	0	2562000	3562000	
23	2028	57	0	2633000	3633000	
24	2029	58	0	2704000	3704000	
25	2030	59	0	2775000	3775000	
26	2031	60	0	2846000	3846000	
27	2032	61	0	2917000	3917000	
...	Till	Death	666675	increament@	71000 p.a. till death	

Bonus a ssumed (@71%)O S A p.a. & FAB 410% O S A) as per valuation dtd 03'05

Age at death	Estate available for family (Claim value + SA+Bonos+FAB)
75 yrs	52,40,000/-
80 yrs	55,95,000/- (even alive settled as maturity claim)

REPORT ON LIFE & GENERAL INSURANCE

(Source : IRDA - Annual Report 2004-05

APPRAISAL OF INSURANCE MARKET

The insurance sector was opened up in the year 1999 facilitating the entry of private players into the industry. With an annual growth rate of 24.31 per cent and the largest number of life insurance policies in force, the potential of the Indian insurance industry is huge. The year 1999 saw a revolution in the Indian insurance sector, as major structural changes took place with the ending of government monopoly and the passage of the Insurance Regulatory and Development Authority (IRDA) Bill, lifting entry restrictions for private players and allowing foreign players to enter the market with some limits on direct foreign ownership. According to CSO, the insurance and banking services' contribution to the country's GDP is 7.1 per cent out of which the gross premium collection forms a significant part. Life insurance penetration in India was less than 1 per cent till 1990-91. During the '90s, it was between 1 and 2 per cent and from 2001 it was over 2 per cent. In 2003-04 it was 2.4 per cent. The impetus for increase is due to the active role played by IRDA in licensing private players and taking positive steps in increasing the insurance awareness among the people. Besides, the insurance companies in general and private insurance companies in particular, are reaching to so far untapped potential in rural areas with aggressive campaign by offering suitable products.

The penetration rates of health and other non-life insurances in India is also well below the international level. These facts indicate immense growth potential of the insurance sector. The hike in FDI limit to 49 per cent was proposed by the Government last year. This has not been operationalised as legislative changes are required for such hike. Since opening up of the insurance sector in 1999, foreign investments of Rs. 8.7 billion have poured into the Indian market and 21 private companies have been granted licenses.

Innovative products, smart marketing, and aggressive distribution have enabled fledgling private insurance companies to sign up Indian customers faster than anyone expected. Life insurance is viewed as a tax saving device. People are now turning to the private sectors that are providing them with new products and variety for their choice.

With the registration of Sahara Life Insurance Company Ltd., the number of companies operating in the life insurance industry has increased to fourteen. The new entrant commenced underwriting life premium during the financial year 2004-05, although to a comparatively slow start. Sahara Life is the first life insurance company in the private sector which has set up operations in the country without participation of a foreign joint venture partner. The company issued 10,195 policies with total premium income of Rs.1.74 crore. (Tables 1 and 2 give the key market indicators and the number of registered insurers in India)

TABLE 1

KEY MARKET INDICATORS

Life and non-life market in India	Rs. 1,00,335.79 crore
Global insurance market (as on 31st December, 2004)	US $3243.91 billion Nominal growth : 9.7 per cent Inflation adjusted : 2.3 per cent
Growth in premium underwritten In India and abroad in 2004-05	Life : 24.31 per cent Non-life : 12.09 per cent
Geographical restriction for new players	none
Equity restriction	Foreign promoter can hold up to 26 per cent of the equity
Registration restriction	Composite registration not available

There are currently fourteen life and fourteen non-life insurance companies, out of non-life insurance companies, two are specialized Insurance companies viz. Agricultural Insurance Company, which handles Crop Insurance business and Export Credit Guarantee Corporation which only transacts Export Credit Insurance.

TABLE 2

NUMBER OF REGISTERED INSURERS IN INDIA

Type of business	Public Sector	Private Sector	total
Life Insurance	01	13*	14
General Insurance	06	08	14
Reinsurance	01	0	01
Total	**08**	**21**	**29**

*One has commenced operations in 2005-06

Capital requirement and foreign participation

The improvement in FDI flows reflected the impact of recent initiatives aimed at creating an enabling environment for FDI and for encouraging infusion of new technologies and management practices. The decision to hike sectoral caps on FDI in telecom from 49 per cent to 74 per cent and in air transport services from 40 per cent to 49 per cent buoyed investors' interest in these sectors. The Government's proposal to increase the FDI cap in the insurance sector from the present 26 per cent to 49 per cent has raised expectations among the international insurance companies. India has a favourable market which is growing fast.

Indian Insurance Industry

With a large population and untapped market, insurance happens to be a big opportunity in India. The insurance business is growing at an annual rate of 21.9 per cent. Together with banking services, it accounts for about 7.1 per cent to the country's GDP. However, insurance penetration in the country is poor. Insurance penetration or premium volume as a share of a country's GDP, for the year 2004-05 is at 2.53 per cent for Life insurance and 0.65 per cent for Nonlife insurance. The level of penetration tends to rise as income increases, particularly in life insurance. India with about 200 million middle class households shows a potential for insurance industry. Saturation of markets in many developed economies has made the Indian market even more attractive for global insurance majors. The insurance sector was opened up for private participation four years ago and the private players are active in the liberalized environment. The insurance market have witnessed dynamic changes which includes presence of a fair number of insurers both life and non-life segment. Most of the private insurance companies have formed joint venture partnering well with recognized foreign players across the globe. The Indian Insurance market accounts only for 0.59 per cent of USD 2,627 billion global insurance market. Consumer awareness has improved. Competition has brought more products and better customer servicing. It has had a positive impact on the economy in terms of income generation and employment growth.

i) Life Insurance

The life insurance industry recorded a premium income of Rs.82854.80 crore during the financial year 2004-05 as against Rs.66653.75 crore in the previous financial year, recording a growth of 24.31 per cent. The contribution of first year premium, single premium and renewal premium to the total premium was Rs.15881.33 crore (19.16 per cent); Rs.10336.30 crore (12.47 per cent); and Rs.56637.16 crore (68.36 per cent), respectively. In the year 2000-01, when the industry was opened up to the private players, the life insurance premium was Rs.34,898.48 crore which constituted of Rs. 6996.95 crore of first year premium, Rs. 25191.07 crore of renewal premium and Rs. 2740.45 crore of single premium. Post opening up, single premium had declined from Rs.9,194.07 crore in the year 2001-02 to Rs.5674.14 crore in 2002-03 with the withdrawal of the guaranteed return policies. Though it went up marginally in 2003-04 to Rs.5936.50 crore (4.62 per cent growth) 2004-05, however, witnessed a significant shift with the single premium income raising to Rs. 10336.30 crore showing 74.11 per cent growth over 2003-04. (Table3)

TABLE 3

PREMIUM UNDERWRITTEN BY LIFE INSURERS

(Rs. lakh)

Insurer	2003-04	2004-05
	First year premium including Single premium	
LIC*	1734761.74	2065306.36
	(6.34)	(19.05)
Private Sector	244070.58	556457.34
	(152.74)	(127.99)
Total	**1978832.32**	**2621763.70**
	(14.68)	(32.49)
	Renewal Premium	
LIC	4618580.96	5447422.62
	(19.47)	(17.95)
Private Sector	67962.05	216293.48
	(343.12)	(218.26)
Total	**4686543.01**	**5663716.10**
	(20.75)	(20.85)
	Total Premium	
LIC	6353342.70	7512728.98
	(15.63)	(18.25)
Private Sector	312032.63	772750.82
	(178.83)	(147.65)
Total	6665375.33	8285479.80
	(18.91)	(24.31)

Note: Figures in brackets indicate the growth (in per cent)
* includes the investment component under unit linked products

The life insurance industry underwrote first year premium (inclusive of single premium) of Rs.26217.64 during 2004-05 as against Rs.19788.32 crore in 2003-04. The industry clocked a growth of 32.49 per cent driven by a significant jump in unit linked business. Interestingly, the growth in the first year premium (other than single premium) came on the policies issued by the private insurers with a growth rate of 106.46 per cent as against a negative growth exhibited by LIC at 1.25 per cent. As against this, the private insurers and LIC reported single premium growth of 239.46 per cent and 62.32 per cent, respectively.

The size of life insurance market increased on the strength of growth in the economy and concomitant increase in per capita income. This resulted in a favourable growth in total premium both for LIC (18.25 per cent) and to the new insurers (147.65 per cent) in 2004-05. The higher growth for the new insurers is to be viewed in the context of a low base in 2003-04. However, the new insurers have improved their market share from 4.68 in 2003-04 to 9.33 in 2004-05. (Table 4)

TABLE 4

MARKET SHARE OF LIFE INSURERS

(In per cent)

Insurer	2003-04	2004-05
	First year premium including Single premium	
LIC	87.67	78.78
Private Sector	12.33	21.22
Total	**100.00**	**100.00**
	Renewal Premium	
LIC	98.55	96.18
Private Sector	1.45	3.82
Total	**100.00**	**100.00**
	Total Premium	
LIC	95.32	90.67
Private Sector	4.68	9.33
Total	**100.00**	**100.00**

Segregation of the first year premium underwritten during 2004-05 indicates that Life, Annuity, Pension and Health contributed 77.27; 6.7; 15.55 and 0.47 per cent respectively to the first year premium. As against this, 81.68; 8.62; 8.97 and 0.72 per cent was respectively underwritten in the above segments in 2003-04. There is a slow but clear shift towards pension business.

New policies underwritten by the industry were 262.11 lakh during 2004-05 showing a decline of 8.44 per cent against 2003-04. Prior to this, in the year 2003-04, the number of new policies underwritten had increased to 286.27 lakh as against 253.70 lakh in 2002-03, exhibiting an increase of 12.83 per cent. While the private insurers exhibited a growth of 34.62 per cent, LIC showed a negative growth of 11.09 per cent. The market share of the private insurers and LIC, in terms of policies underwritten, was 8.52 per cent and 91.48 per cent as against 5.79 per cent and 94.21 per cent respectively in 2003-04. (Table 5)

TABLE 5

NEW POLICIES ISSUED : LIFE INSURERS

Insurer	2003-04	2004-05
Private Sector	1658847 (5.79)	2233075 (8.52)
LIC	26968069 (94.21)	23978123 (91.48)
Total	**28626916**	**26211198**

Note: Figures in brackets indicate the ratio (in per cent) of respective insurer

The increase in the renewal premium is a good measure of the quality of the business underwritten by the insurers. It reflects the increase in their persistency ratio and enables insurers to bring down overall cost of doing business. The renewal premium underwritten by the private insurers during 2004-05 reflects that some of the insurers have shown a healthy growth. The average for the private insurers, examined in the context of the renewal premium to the first year premium underwritten (excluding single premium), shows an increase to 68.67 as against 61.56 in 2003-04 and a mere 32.88 in 2002-03.

Analysis of the first year premium in terms of linked and nonlinked premium reflects that linked products continued to rule the roost in 2004-05. LIC, the public sector insurer, too underwrote significant business in this line. While premium underwritten under the linked categories grew by 422.19 per cent, the non-linked premium was almost static with growth of just 0.028 per cent. The linked and non linked business accounted for 32.54 per cent and 67.46 per cent respectively in the year 2004-05, as against 8.46 and 91.54 per cent in 2003-04.

The non-linked and linked new business premium underwritten by LIC in 2004-05 was 78.31 per cent and 21.69 per cent as against 97.70 per cent and 2.29 per cent in 2003- 04. In case of private insurers the percentages were 28.72 and 71.28 in 2004-05 as against 50.18 and 49.82 per cent respectively in the previous year. The data clearly reflects LIC's decision to drive its premium growth on the strength of unit linked products. The Group business has also witnessed some churning as the market has become more competitive. This has been true for the term business also. Today Group products are offered by all the life insurers.

Innovations in the products

With the demographic changes and changing life styles, the demand for insurance cover has also evolved taking into consideration the needs of prospective policyholder for packaged products. There have been innovations in the types of products developed by the insurers, which are relevant to the people of different age groups, and suit their requirements. Continued innovations in product development has resulted in a wide range of flexible products to meet the requirements for cover at different stages of life – today a variety of products are available ranging from traditional to Unit linked providing protection towards child, endowment, capital guarantee, pension and group solutions. A number of new products have been introduced in the life segment with guaranteed additions, which were subsequently withdrawn/toned down; single premium mode has been popularized; unit linked products; and add–on/riders including accidental death; dismemberment, critical illness, fixed term assurance risk cover, group hospital and surgical treatment, hospital cash benefits, etc. Comprehensive packaged products have been popularized with features of endowment, money back, whole life, single premium, regular premium, rebate in premium for higher sum assured, premium mode rebate, etc., together with riders to the base products.

TABLE 9

PREMIUM UNDERWRITTEN BY NON-LIFE INSURERS - SEGMENT WISE

(Rs. Crore)

Department	2003-04	2004-05
Fire	3150 (20.20)	3331 (19.05)
Marine	1118 (7.17)	1228 (7.03)
Misc	11327 (72.63)	12922 (73.92)
Total Premium	**15595**	**17481**

Note : Figures in brackets indicate the ratio(in percent) of respective segment.

The financial year continued to exhibit the shift in the business underwritten by private insurers. Segment-wise analysis of the premium underwritten by them reveals that there has been a continued focus on certain lines of business. While the overall fire premium increased from Rs.3150.10 crore in 2003-04 to Rs.3330.92 crore in 2004-05, i.e., an increase of Rs.180.82 crore, the private insurers reported Rs.215.73 crore over previous year. The contribution of private insurers in fire segment increased to 27.60 per cent in 2004-05 as against 22.34 in 2003-04. This is a significant development since the Fire segment has also been amongst the high profit areas.

In terms of number of policies issued, the industry reported a growth of 13.23 per cent in 2004-05. The number of policies written by the new insurers increased by 54.80 per cent (85.53 per cent in 2003-04) whereas in the case of public sector insurers the increase was 9.66 per cent (based on revised data furnished). (Table-10)

TABLE 10

NEW POLICIES ISSUED : NON-LIFE INSURERS

Insurer	2003-04	2004-05
Private Sector	3298827 (7.91)	5106653 (10.81)
Public Sector	38427204 (92.09)	42141970.5 (89.19)
Total	**41726031**	**47248623**

Note: Figures in brackets indicate the ratio (in per cent) of respective insurers and Numbers for 2003-04 are revised in the current year.

Among the public sector insurers, New India held a market share of 24.09 per cent (25.94 in 2003-04), followed by National Insurance Company at 21.74 per cent (21.74) per cent. Oriental Insurance and United India held a market share of 17.26 per cent (18.16) and 16.84 per cent (19.67) respectively. United India reported a decline of 4 per cent in premium underwritten. The private insurers have broadly succeeded in stabilizing their operations and their market share ranged between 5.00 and 0.92 per cent. While all the private insurers reported increase in premium underwritten, except one insurer all of them increased their market share. (Statement-26)

Premium Underwritten Outside India

The public sector non-life insurers have operations outside India and have underwritten premium of Rs.975.86 crore (Rs.947.57 crore in 2003-04) through such operations abroad, which constituted 6.53 per cent (6.98 per cent in 2003-04) of the gross premium underwritten by them. (Table-11)

TABLE 11

RATIO OF OUTSIDE INDIA PREMIUM TO TOTAL PREMIUM

(In Per cent)

Insurer	2003-04	2004-05
National	0.26	0.28
New India	17.80	17.49
Oriental	2.33	2.35
United	0.00	0.00

New India has operations in 24 countries through a network of branches, 2 agencies, associate companies and subsidiaries. 17.49 per cent (17.8 per cent in 2003-04) of its premium is being underwritten abroad, the operations in respect of National Insurance and Oriental Insurance constitute a small component of their overall business at 0.28 per cent (0.26 per cent in 2003-04) and 2.35 per cent (2.33 per cent in 2003-04) respectively. National Insurance Company underwrote a premium of Rs.10.74 crore in 2004-05 (growth of 21 per cent) as against Rs.8.87 crore in 2003-04. New India too increased the premium underwritten abroad at Rs.892.35 crore as against Rs.875.79 crore in the previous financial year, albeit with a mere growth of 1.89 per cent. Oriental Insurance underwrote a premium of Rs.72.77 crore during the year as against Rs.67.63 crore in the previous year, i.e. a growth of 7.60 per cent. United India has ceased foreign operations since 2003-04. (Table-12)

TABLE 12

GROSS DIRECT PREMIUM FROM BUSINESS OUTSIDE INDIA : NON-LIFE INSURERS

(Rs.lakh)

Insurer	2003-04	2004-05
National	886.75 (41.00)	1073.80 (21.09)
New India	87578.92 (-2.00)	89235.00 (1.89)
Oriental	6763.10 (4.00)	7277.00 (7.60)
United	-	-

Note : Figures in bracket indicate the growth over previous year (in per cent)

Innovations in Products Introduced

Insurers have taken steps to introduce new products to meet the specific requirements of the insured. Innovations have been made to cater to the needs arising out of the structural changes in the economy. New products introduced by the non-life insurers include Mutual Fund Package Policy providing cover in respect of the assured's legal liability to third parties for claims towards financial loss caused by negligent act, negligent error or negligent omission on the part of an officer/employee; Third Party Liability and Asset Protection covers are available in respect of mutual funds covering their business operations; Pollution Liability Package Policy intended to cover damage costs of the insured due to slow and gradual pollution activities; Event Insurance Policy indemnifies the insured against the loss or damage due to cancellation of event. Weather insurance cover has been launched for farming community, which suffers high losses year after year due to vagaries of nature. The specific products introduced by the insurers, which were aimed at the rural markets include Weather Insurance, Farm Income Insurance Scheme, Varsha Bima (Rainfall Insurance) and Farmers' Package Policy. Health insurance is another area in which positive developments have been noticed.

Paradigm Shift in the Segments

The contribution of the private insurers in various industry segments has increased on account of both their capturing a part of the business which was earlier underwritten by the public sector insurers and also creating additional business avenues. To this effect, the public sector insurers have been unable to draw upon their inherent strengths to capture additional premium. Of the growth in premium in 2004-05, 66.27 per cent has been captured by the private insurers despite having 20 per cent market share.

The segment wise fire, marine and miscellaneous breakup of premium underwritten by the private insurers stood at Rs.919.54 crore, Rs.245.11 crore and Rs.2342.99 crore respectively, i.e., a growth of 30.65 per cent, 61.17 per cent 67.12 per cent. Under the miscellaneous segment, the motor and health premium recorded a growth of 70.35 per cent and 148.04 per cent respectively. In terms of number of policies, 2.58 lakh, 1.45 lakh and 47.02 lakh policies were underwritten in fire, marine and miscellaneous segments i.e., a growth of 28, 73 and 56 per cent respectively. The number of policies issued in the motor and health segments stood at 33.52 lakh and 6.73 lakh policies, i.e., a growth of 50 and 75 per cent respectively. (Statement-26)

The segment wise break up of fire, marine and miscellaneous segments in case of the public sector insurers was Rs.2411.38 crore, Rs.982.99 crore and Rs.10578.59 crore, i.e., a growth of (-)1.43 per cent, 1.81 per cent and 6.58 per cent. The public sector insurers reported growth in Motor and Health segments (9 and 24 per cent). These segments accounted for 45 and 10 per cent of the business underwritten by the public sector insurers. Fire and "Others" accounted for 17.26 and 11 per cent of the premium underwritten. Aviation, Liability, "Others" and Fire recorded negative growth of 29, 21, 3.58 and 1.43 per cent.

Retention Ratio

The retention ratio of the insurers is based on their capability to bear risks. Traditionally, the public sector insurers have retained a significant component of their portfolio, although the net retention is driven by the respective segment in which the premium has been underwritten. The net retention ratio of the public sector insurers increased to 74.37 per cent from the previous year's level of 72.30 per cent. All the four public sector had a higher retention ratio – New India 76.33 per cent (73.86 per cent in 2003-04); National 74.32 (73.78); United 73.79 (70.23); and Oriental 71.77 (70.11) based on the segment wise exposure of the individual insurers, the retention ratios varied within individual segments. While the retention ratio in case of fire segment ranged between 78.12 and 66.61 per cent, in the marine and miscellaneous segments it ranged between 55.97 to 45.63 per cent and 77.87 to 75.02 per cent respectively.

The retention ratios of the new insurers have broadly varied depending upon the composition of their portfolio. While, HDFC Chubb retained 76.44 per cent (previous year: 78.50 per cent; a significant component of its portfolio being Motor); Royal Sundaram, Cholamadalam, IFFCO Tokio and TATA AIG retained 60.97 (60.64); 52.86 (49.80); 47.27 (41.38) and 57.95 (54.91) per cent of their portfolio. Retention ratio of Bajaj Allianz was lower at 56.28 (60.10). ICICI Lombard and Reliance had the least retention levels at 36.72 (26.67) and 23.40 (22.09) per cent respectively.

TABLE 15

INCURRED CLAIMS RATIO : PUBLIC SECTOR NON-LIFE INSURERS

(Per cent)

Department	2003-04	2004-05
Fire	30.60	39.72
Marine	59.77	62.81
Miscellaneous	93.91	92.34
Total	**79.91**	**81.63**

The incurred claims ratio continued to be the highest in the miscellaneous business, followed by marine and fire segments. Fire business has traditionally been one of the profitable lines of insurance business. United India had a net incurred claims ratio of 108.63 per cent in the miscellaneous segment. The insurer also had the incurred claims ratio of 70.31 per cent in the marine segment, while Oriental reported the highest incurred claims ratio of 46.19 per cent in Fire segment. (Statement-30)

In the case of the private insurers, the net incurred claims were Rs.911.73 crore as against Rs.543.37 crore in 2003-04. Overall, the incurred claims ratio was 51.16 per cent as against 50.97 in 2003-04. Net incurred claims ratio increased in the case of TATA AIG 48.31 per cent (44.84), Cholamandalam 61.16 (43.22) per cent HDFC Chubb 58.94 (34.99) per cent and declined in the case of IFFCO-Tokio 50.79 (54.64) per cent, Royal Sundaram 56.39 (57.33) per cent, Bajaj Allianz 47.22 (52.58) per cent, Reliance 61.91 (68.72) per cent and ICICI Lombard 48.23 (53.96) per cent. (Table-16 and Statement-31).

TABLE 16

INCURRED CLAIMS RATIO : PRIVATE SECTOR NON-LIFE INSURERS

(Per cent)

Department	2003-04	2004-05
Fire	27.18	37.91
Marine	81.89	87.82
Miscellaneous	53.03	50.75
Total	**50.97**	**51.16**

Underwriting Experience

The four public sector insurers continued to incur underwriting losses in 2004-05. The cumulative underwriting losses increased to Rs. 2579.38 crore, i.e., 23.20 per cent of the net premium of four public sector insurers as against Rs.2218.48 crore (21.48 per cent in 2003-04). These losses across the insurers ranged between 17.57 and 34.37 per cent (18.96 and 25.09 per cent in 2003-04). While New India and National reported a decline in underwriting losses 17.57 (18.96) and 18.96 (21) percent, Oriental and United India reported increase in these losses 27.56 (22.77) and 34.37 (25.09) per cent respectively. (Table-17)

TABLE 17

UNDERWRITING EXPERIENCE : NON-LIFE INSURERS

(Rs.lakh)

	2003-04	2004-05
Public Sector	(221848)	(257938)
Private Sector	(6373)	250

Note : Figures in brackets indicate loss

The strain on underwriting results continues to be on account of increase in net incurred claims ratio to 81.63 per cent (up from 79.91 per cent in the previous year) and high expenses of management although declined from 37.97 per cent as against 39.23 per cent in 2003-04. The Reserves for Unexpired Risk increased to 3.61 per cent as against 2.34 per cent in 2003-04. Other than United India, others showed an increase in the reserves, which was particularly sharp in case of New India at 4.31 per cent as against 1.25 per cent in 2003-04. (Statement-28)

TABLE 18

OPERATING EXPENSES : NON-LIFE INSURERS

(Rs. lakh)

Insurer	2003-04	2004-05
Public Sector	364768.00	364030.89
Private Sector	49516.66	69198.26
Total	**414284.66**	**433229.15**

Note : Public sector does not include ECGC, AIC and GIC

Cumulatively, the private insurers reported underwriting profits of Rs.2.50 crore, i.e., 0.14 per cent of the net premium underwritten in 2004-05 as against underwriting losses of 63.73 crore at 5.98 per cent of the net premium in 2003-04. While four insurers reported underwriting profits, the other four reported a decline in the losses compared to the previous year. The underwriting losses of the four insurers ranged between 3.98 and 15.88 per cent of net premium. Of the four insurers who reported underwriting profits, there was a turnaround in case of two insurers. However, in case of ICICI Lombard the underwriting profits showed a sharp decline at 0.84 per cent as against 13.90 per cent in 2003-04. Overall, the improvement in results was on the strength of decrease in the expenses of management

(27.32 per cent from 27.78 per cent in the previous year); decline in the additional Reserves for Unexpired Risk (21.38 per cent as against 27.23 per cent in the previous year) and reinsurance commissions received by the private insurers. However, the net incurred claims ratio increased to 51.16 per cent as against 50.97 per cent. Cholamandalam and HDFC Chubb reported a sharp increase in the net incurred claims ratio in 2004-05.

General Insurance Corporation (GIC)

As a sole reinsurer in the domestic reinsurance market, GIC provides reinsurance to the direct general insurance companies in the Indian market. GIC receives statutory cession of 20 per cent on each and every policy subject to certain limits. It leads many of domestic companies' treaty programmes and facultative placements. The Corporation's reinsurance programme has been designed to meet the objectives of optimizing the retention within the country, ensuring adequate coverage for exposures and developing adequate capacities within the domestic market. Marine Hull Pool continues to operate with GIC as the Manager. Similarly, the Terrorism Pool is also being managed by GIC on behalf of the Indian Insurance Industry. In view of the good results of the Terrorism Pool, with effect from 1st, February, 2005 the capacity has been increased to Rs.500 crore per location. GIC has taken over the GOI's War Scheme with effect from 1st January, 2005. To protect the exposures due to war, an additional cover of Rs.400 crore for war alone has been taken. A vertical capacity to cover a risk up to Rs.1500 crore (PML) has been developed for the benefit of the Indian Market. An additional cover by the name "Peak Risk Facility" is also in place. High value risks are automatically ceded to this facility after cession to various other arrangements. This increases GIC's capacity to Rs.3000 crore (PML) for such risks. A catastrophic peril cover is in place for a limit of Rs.850 crore. An additional Earthquake peril protection for Rs.750 crore has also been taken. A marine cover for Rs. 250 crore is also in place. Protection for Personal Accident business and oil & Energy business has also been put in place.

Crop Insurance

Agricultural Insurance Company of India Limited (AIC), besides implementing the government supported National Agricultural Insurance Scheme (NAIS), has also been introducing new insurance products from time to time. About 18 million farmers were insured during 2004-05, (12 million in the previous year) at a total premium of Rs.550 crore on administered premium structure, which otherwise would be roughly equivalent to Rs.2200 crore if based in actuarial rates. The company is also planning to expand its product base, expertise, including providing consultancy services to other countries. The company secured the World Bank's technical assistance project in premium rating and design of area yield based insurance products. In the private sector ICICI Lombard has insured about one lakh farmers against crop failure. In the current scenario, the AIC is the largest body offering insurance cover to cultivators in India.

The AIC introduced Varsha Bima scheme, a scheme intended to protect the interests of farmers in case of an adverse rainfall season, during the year 2004 kharif season as a pilot project in 20 rain gauge station areas, across four States. Based on the experience, the scheme was designed and fine-tuned before being launched as Varsha Bima 2005. The scheme is being implemented in 10 States initially, in areas that correspond to 140 India Meteorological Department rain gauge stations. The States selected for implementation are Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttaranchal and Uttar Pradesh. The scheme offers coverage to both shortsowing periods and entire crop seasons and to large, small and marginal farmers both for loanees and for non-loanees. However, it is compulsory for loanee farmers. Under this scheme, the sum insured is pre-specified, which lies between the cost of production and the value of production and the premium rates are flexible. Besides this, the AIC has offered the Sookha Suraksha Kavach (SSK) an exclusive product for drought-prone Rajasthan. The SSK is being made available in 23 districts of Rajasthan, and it covers major crops such as bajra, jowar, maize, guar, soybean and groundnut. The sum insured will be roughly equal to the cost of production and there will be a flexible premium rate. The insurance period lasts from June to September for short-duration crops, from June to October for medium-duration crops and June to November for longduration crops. But this period of insurance differs from State to State, since the cropping and land-use pattern are different. Farmers can also opt for the rainfall distribution index where they are covered against deviations of 20 per cent or more in the actual rainfall index from the normal rainfall indeed. This index is constructed in such a way that it assigns key factor weights for the area's weekly rainfall within the season. These weights are based on yield response factors (these are based on research conducted by the Food and Agriculture

Organization) and the Crop Weather Calendar, which is issued by the IMD. The farmers have the option of group insurance, so that a group of cultivators can opt for Varsha Bima or SSK by submitting a single crop-wise proposal, followed by a summary sheet containing details of each insured individual. Farmers who buy Varsha Bima cannot simultaneously take other crop insurance schemes for the same crop in the same area, and for the same time period.

The NAIS covers all food crops, oilseeds and commercial and horticultural crops This nation-wide crop insurance programme offers yield protection, and is implemented in 23 States and two Union Territories. The NAIS covers the most number of farmers in the world. Overall, it covers over 30 crops during the kharif season and over 25 crops during the rabi season. Since its inception the scheme has offered coverage to 46.21 million farmers. The total sum insured for the year came to Rs.40,298 crore, with premiums worth earned Rs.1,243 crore. AIC has also implemented various other crop-related insurance schemes such as the Farm Income Insurance Scheme (FIIS), launched in the rabi season of 2003-04. The AIC is also trying to spread awareness through crop insurance education programmes. It has set up a research and development department as part of the attempt to design farmer-friendly and affordable insurance products.It is already using remote-sensing technology for crop insurance, as was done in six districts of Andhra Pradesh, Gujarat, Karnataka and Maharashtra. This involves acreage estimation, stress detection, crop health and yield modeling. The AIC is planning to expand further and bring all eligible crop loans and more areas, into its fold over the next three to five years. Since, farm income is directly linked to crops, which are vulnerable to adverse weather Insurance where it has compensated the farmers against the diminished value of crops/losses due to adverse weather fluctuations. The success of this experiment has led to similar products being developed by IFFCO Tokio. Taking a cue from this, other insurers are also taking initiatives and doing R&D in this segment.

Indian agriculture continues to depend on weather fluctuations resulting in inconsistent output growth and large deviations in agriculture income. Therefore the output needed to be smoothened ensuring reasonable income to the farmer in each year. In this context, imparting stability to agriculture through measures of weather-proofing and protecting farm income assumes significance, as it would lead to stability of increased output, increased capital formation and enhanced productivity of Indian agriculture. Towards this end there has been a growing interest in linking credit to some form of weather insurance. Weather insurance provides cover against defined deviations from normal weather conditions, not just against extreme conditions like severe drought or flood.

Micro-Insurance

For a long time a need has been felt for having insurance products which can be afforded by the rural and urban poor. Keeping in perspective the abysmal insurance coverage to the poor (rural & urban) the Authority as part of its developmental role put across the concept of microinsurance. The term micro was kept to differentiate it from insurance which is available otherwise.

The concept paper on micro-insurance was put on the website of the Authority in August 2004 for comments from the interested parties. A large number of comments from the stakeholders were received. Suggestions which were found useful were incorporated in the draft regulations. The draft regulations were discussed in the Insurance Advisory Committee and also in the IRDA Board. The draft regulations have now been notified.

The focus of the micro-insurance regulations is to provide a platform and rules to provide insurance to the targeted segment of the society. The regulations provide for a tie up between a life & a non-life insurance company for distribution of insurance products to improve the penetration of insurance in the selected segment. Thus cross selling which is not being allowed in general for other insurance products is allowed for micro-insurance. This is one of the major initiatives taken in the micro-insurance regulations. The regulations also define micro-insurance agents, which can be Self Help Groups, Micro-Finance Institutions and Non-Governmental Organizations. A major departure from the existing norms for licensing agents is that the microinsurance agents would have to undergo a capacity building training of twenty five hours which will be provided by the insurance company to whom the agent is attached and that the micro-insurance agent need not have to pass the test to become a certified agent. This change is designed to provide a much needed fillip to the distribution channels in rural India for marketing low value products which till date was an area of concern since getting agents in rural areas has been a perennial problem.

STATEMENT 26

GROSS DIRECT PREMIUM INCOME IN INDIA

(Rs. Lakh)

Company	Fire		Misc		Marine		TOTAL	
	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04
NATIONAL	53764	51577	301098	268815	25129	18718	379991	339110
NEW INDIA	78888	77520	316944	301127	25249	25921	421081	404568
ORIENTAL	49395	52400	228842	208918	23541	21893	301778	283211
UNITED	59091	63132	210975	213673	24380	30014	294446	306819
Sub-Total	**241138**	**244629**	**1057859**	**992533**	**98299**	**96546**	**1397296**	**1333708**
ROYAL SUNDARAM	6301	5053	25089	19385	1680	1338	33070	25776
RELIANCE	5358	4636	9541	10149	1270	1319	16169	16104
IFFCO-TOKIO	17278	14288	29299	15486	3087	2449	49664	32223
TATA AIG	8371	7844	32368	23417	4085	3089	44824	34350
ICICI LOMBARD	27745	23946	51389	20368	8253	4359	87387	48673
BAJAJ ALLIANZ	21942	12029	58724	33550	4496	2072	85162	47651
CHOLAMANDALAM	4778	2544	10557	6577	1590	582	16925	9703
HDFC CHUBB	181	36	17332	11257	50	17563	11293	
Sub-Total	**91954**	**70376**	**234299**	**140189**	**24511**	**15208**	**350764**	**225773**
Grand Total	**333092**	**315005**	**1292158**	**1132722**	**122810**	**111754**	**1748060**	**1559481**

STATEMENT 27

NET PREMIUM INCOME (Earned)*

(Rs. Lakh)

Company	Fire		Misc		Marine		TOTAL	
	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04
NATIONAL	35259	34828	219855	184137	11300	19816	266414	238781
NEW INDIA	79884	79419	279536	259483	17297	20043	376717	358945
ORIENTAL	33690	32914	166843	151453	11784	12879	212317	197246
UNITED	42548	42117	162387	158377	11329	13170	216264	213664
Sub-Total	**191381**	**189278**	**828621**	**753450**	**51710**	**65908**	**1071712**	**1008636**
ROYAL SUNDARAM	1909	1340	14581	11191	838	692	17328	13223
RELIANCE	1625	900	2847	1551	330	181	4802	2632
IFFCO TOKIO	3158	2432	12777	6572	1602	1019	17537	10023
TATA AIG	810	823	20148	12020	1802	1519	22760	14362
ICICI LOMBARD	3616	2388	16353	4872	1591	649	21560	7909
BAJAJ ALLIANZ	5264	2641	30241	19728	1586	696	37091	23065
CHOLAMANDALAM	1085	338	5639	1895	380	150	7104	2383
HDFC CHUBB	109	11801	3986	16	11926	3986		
Sub-Total	**17576**	**10862**	**114387**	**61815**	**8145**	**4906**	**140108**	**77583**
Grand Total	**208957**	**200140**	**943008**	**815265**	**59855**	**70814**	**1211820**	**1086219**

STATEMENT 28

UNDERWRITING EXPERIENCE AND PROFITS OF PUBLIC SECTOR COMPANIES

(Rs. Lakh)

	NEW INDIA		ORIENTAL		NATIONAL		UNITED		TOTAL	
	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04
NET PREMIUM	389511	363495	221802	203304	283216	250865	217266	215136	1111795	1032800
NET CLAIMS PAYABLE	290498	271358	190838	158765	226350	210990	199853	184217	907539	825330
	74.58%	74.65%	86.04%	78.09%	79.92%	84.10%	91.99%	85.63%	81.63%	79.91%
COMMISSION, EXPENSES	154644	156498	82618	84769	93769	80474	91081	83413	422112	405154
OF MANAGEMENT AND	39.70%	43.05%	37.25%	41.70%	33.11%	32.08%	41.92%	38.77%	37.97%	39.23%
OTHER CHARGES										
INCREASE IN RESERVE FOR	12794	4549	9485	6058	16802	12084	1001	1473	40082	24164
UNEXPIRED RISK	4.31%	1.25%	4.28%	2.98%	5.93%	4.82%	0.46%	0.68%	3.61%	2.34%
UNDERWRITING	(68425)	(68910)	(61139)	(46288)	(53705)	(52683)	(74669)	(53967)	(257938)	(221848)
PROFT/LOSS	-17.57%	-18.96%	-27.56%	-22.77%	-18.96%	-21.00%	-34.37%	-25.09%	-23.20%	-21.48%
GROSS INVESTMENT	149253	126679	108219	94313	68517	66268	107029	94560	433018	381820
INCOME OTHER INCOME	(1040)	7021	91	(2595)	(690)	(6285)	(530)	(1254)	(2169)	(3113)
LESS OTHER OUTGO										
PROFIT BEFORE TAX	79788	64790	47171	45430	14122	7300	31830	39339	172911	156859
INCOME TAX DEDUCTED AT	39565	5768	14118	13786	1009	178	1059	1295	55751	21027
SOURCE AND PROVISION FOR TAX										
NET PROFIT AFTER TAX	40223	59022	33053	31644	13113	7122	30771	38044	117160	135832

Note : Figures in brackets indicates negative amounts.

STATEMENT 29

UNDERWRITING EXPERIENCE AND PROFITS OF PRIVATE SECTOR COMPANIES

(Rs. Lakh)

	ROYAL SUNDARAM		BAJAJ ALLIANZ		TATA AIG		RELIANCE		IFFCO TOKIO		ICICI LOMBARD		CHOLAMANDALAM		HDFC CHUBB		TOTAL	
	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04
NET PREMIUM	20162	15630	47929	28641	25977	18864	6196	3454	23476	13334	32089	12981	8947	4832	13425	8867	178202	106603
NET CLAIMS PAYABLE	11371	8961	22633	15061	12549	8458	3836	2374	11923	7285	15476	7005	5472	2089	7913	3103	91173	54336
	56.40%	57.33%	47.22%	52.59%	48.31%	44.84%	61.91%	68.73%	50.79%	54.63%	48.23%	53.96%	61.16%	43.23%	58.94%	34.99%	51.16%	50.97%
COMMISSION, EXPENSES OF MANAGEMENT AND OTHER CHARGES	6759	5238	10718	7892	10006	7039	1464	798	5193	2820	5815	(901)	3053	2466	5679	4265	48687	29617
	33.52%	33.51%	22.36%	27.55%	38.52%	37.31%	23.63%	23.10%	22.12%	21.15%	18.12%	-6.94%	34.12%	51.03%	42.30%	48.10%	27.32%	27.78%
INCREASE IN RESERVE FOR UNEXPIRED RISK	2834	2407	10837	5577	3217	4502	1393	822	5939	3311	10528	5073	1843	2449	1500	4882	38092	29023
	14.06%	15.40%	22.61%	19.47%	12.39%	23.87%	22.49%	23.80%	25.30%	24.83%	32.81%	39.08%	20.60%	50.68%	11.17%	55.06%	21.38%	27.23%
UNDERWRITING PROFIT / LOSS	(802)	(976)	3741	111	205	(1135)	(497)	(540)	421	(82)	270	1804	(1421)	(2172)	(1667)	(3383)	250	(6373)
	-3.98%	-6.24%	7.81%	0.39%	0.79%	-6.02%	-8.03%	-15.63%	1.79%	-0.61%	0.84%	13.90%	-15.88%	-44.95%	-12.42%	-38.15%	0.14%	-5.98%
GROSS INVESTMENT INCOME	1345	1790	3888	3060	2576	2109	1399	1624	1881	1502	5138	2547	1076	1554	1139	1246	18442	15432
OTHER INCOME LESS OTHER OUTGO	(8)	(12)	67	7	(341)	(248)	(181)	(35)	62		(21)	(127)	11	3	(271)	(82)	(682)	(494)
PROFIT BEFORE TAX	535	802	7696	3178	2440	726	721	1049	2364	1420	5387	4224	(334)	(615)	(799)	(2219)	18010	8565
INCOME TAX DEDUCTED AT SOURCE AND PROVISION FOR TAX	34		2987	1008	1216	(804)	138	149	892	462	553	1046					5820	1861
NET PROFIT AFTER TAX	**501**	**802**	**4709**	**2170**	**1224**	**1530**	**583**	**900**	**1472**	**958**	**4834**	**3178**	**(334)**	**(615)**	**(799)**	**(2219)**	**12190**	**6704**

STATEMENT 30

INCURRED CLAIMS RATIO - PUBLIC SECTOR

PARTICULARS	Net Premium (Rs. lakh)					Claims Incurred (Net) (Rs. lakh)					Incurred Claims Ratio (Per cent)				
	Fire	Marine	Misc	2004-05	2003-04	Fire	Marine	Misc	2004-05	2003-04	Fire	Marine	Misc	2004-05	2003-04
NEW INDIA	83100	16860	289551	**389510**	363495	32702	9850	247946	**290498**	271358	39.35	58.42	85.63	**74.58**	74.65
ORIENTAL	34392	12035	175375	**221802**	203303	15885	7959	166994	**190838**	158765	46.19	66.13	95.22	**86.04**	78.09
NATIONAL	36122	12318	234777	**283217**	250865	14411	7244	204696	**226351**	210990	39.90	58.81	87.19	**79.92**	84.10
UNITED	43395	11126	162745	**217266**	215136	15246	7822	176785	**199853**	184217	35.13	70.31	108.63	**91.99**	85.63
TOTAL	**197009**	**52338**	**862448**	**1111795**	**1032798**	**78244**	**32875**	**796421**	**907540**	**825330**	**39.72**	**62.81**	**92.34**	**81.63**	**79.91**

INCURRED CLAIMS RATIO - PRIVATE SECTOR

PARTICULARS	Net Premium (Rs. lakh)					Claims Incurred (Net) (Rs. lakh)					Incurred Claims Ratio (Per cent)				
	Fire	Marine	Misc	2004-05	2003-04	Fire	Marine	Misc	2004-05	2003-04	Fire	Marine	Misc	2004-05	2003-04
ROYAL SUNDARAM	2393	955	16814	20162	15631	971	545	9855	11370	8961	40.56	57.05	58.61	56.39	57.33
BAJAJ ALLIANZ	6892	2136	38901	47929	28641	2546	1890	18197	22633	15061	36.95	88.48	46.78	47.22	52.58
TATA AIG	804	2093	23081	25977	18864	321	1301	10928	12549	8458	39.89	62.17	47.35	48.31	44.84
RELIANCE	1843	460	3893	6196	3455	785	250	2801	3836	2374	42.58	54.42	71.95	61.91	68.72
IFFCO TOKIO	3428	1585	18462	23476	13334	1245	1797	8881	11923	7285	36.30	113.36	48.10	50.79	54.64
ICICI LOMBARD	4272	1663	26153	32089	12982	1445	2107	11925	15476	7005	33.81	126.69	45.60	48.23	53.96
CHOLAMANDALAM	1576	459	6912	8947	4833	756	340	4376	5472	2089	47.99	73.95	63.31	61.16	43.22
HDFC CHUBB	208	29	13189	13425	8867	52	8	7853	7913	3103	24.98	28.17	59.54	58.94	34.99
TOTAL	**21416**	**9380**	**147405**	**178201**	**106607**	**8120**	**8238**	**74815**	**91173**	**54337**	**37.91**	**87.82**	**50.75**	**51.16**	**50.97**

SEMINAR ON CASUALTY ACTUARIAL SCIENCE

A one day seminar on Casualty Actuarial Science (General Insurance Actuarial Science) was held on 8th March, 2006 at West End Hotel, Mumbai.

The theme of the Seminar was "Going to Basics of Insurance". The participants were sponsored by General Insurers, Regulatory Authority and Insurance Brokers in Asia.

The seminar structure was as follows :

Topics	Address by
Insurance Programme	Shri M. G. Diwan, Advisor to President, Insurance Institute of India
Keynote Address on Importance of Actuarial Science in General Insurance Business - Regulator's Perspective	Shri K. K. Srinivasan (Member - Non-Life, IRDA)
Foundations of Casualty Actuarial Science and its relevance to emerging markets	Ms. Mary Frances Miller, Past President, Casualty Actuarial Society, U.S.A.
Developing Actuarial Education in Asia - Role of Actuarial Society of India	Dr. R. Kannan (President, Actuarial Society of India, Mumbai)
Role of Casualty Actuarial Science in De-tariffed Market	Shri Praveen Gupta, General Manager, Bajaj Allianz General Insurance Co. Ltd.
Profitability of Non-Life Business - Role of Underwriting	Shri Shrirang Samant, CEO, HDFC Chubb General Insurance Co. Ltd.
Enterprise Risk Management for Non-Life Insurance companies	Prof. Rajendra Shah, M.D., D. S. Actuarial Education Services.
Valedictory Address	Shri B. Chakrabarti, CMD, The New India Assurance Co. Ltd.

The synopsis of presentation of each faculty is published for the benefit of our readers

Importance of Actuaries in General Insurance Business – Regulator's Perspective

K.K.Srinivasan, Member Non-life, IRDA

Non-life Uniqueness

- Life – Single Variable – Time – until death or maturity.
- Non –life – Two random variables – frequency & severity.
- Life – stable data.
- Non-life – volatile data.

Fields Where Useful

- Analyzing Claims by hazard factors to support rating of risks.
- Analysis of business portfolio as support to strategic planning.
- Rating of long term insurances.
- Rating of long-tail risks.
- Estimating provision for o/s claims & reserve for IBNR and IBNER claims.
- Reserving for premium deficiency

Appointed Actuaries

- Mandated as per Regulations.
- Can be 'consulting actuary' in general insurance

Powers

- Access to all information & documents.
- Powers to seek information.
- Entitled to attend management / board meetings and speak/discuss.
- Entitled to attend share holders/ policy holders meetings.

Duties & Obligations

- Actuarial advice to management wprt product design, pricing, contract wording, investments & reinsurance.
- Ensuring solvency at all times.
- Certification of (valuation) assets & liabilities u/s 64VA.
- Complying with sec 64 VA of maintenance of required solvency.
- Ensuring in –house rates are fair.
- Ensuring use of actuarial principles in calculation of IBNR & other reserves.
- Informing Authority on contraventions of the Act etc.

Absolute Privilege

- To make any statement
- Non-restrictive appointment letter.

Issues

- Non-availability in general and in particular.
- Hence allowed age up to 70 years.
- Costs.
- Exposure/ Experience.
- Professional overlaps.
- Self- regulation & accountability.

Foundations of Casualty Actuarial Science and Its Relevance to Emerging Markets

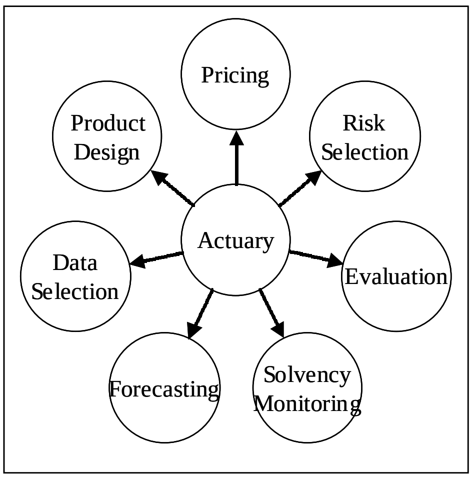
Going to the Basics of Insurance

Ms. Mary Frances Miller

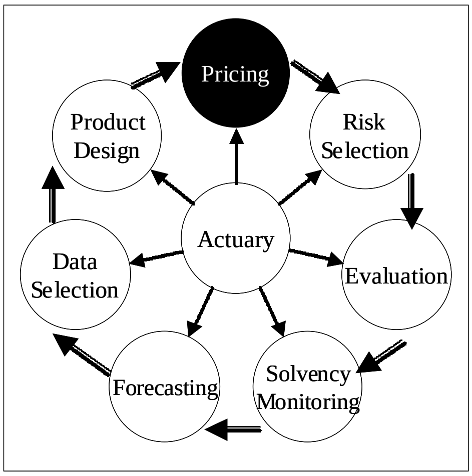
Role of the General Insurance Actuary

- Actuaries evaluate the financial impact of future contingent events
- Basic actuarial calculation:
  — Past experience
  — Adjusted for current conditions
  — Plus anticipated future changes
  — Yields expected future result
- Always recognizing that the actual result will not be as expected!

The Insurance Control Cycle



The Insurance Control Cycle



Pricing (Ratemaking) Process

In a stable world:

Calculate amount needed:
- To pay claims
- To pay expenses

Add these together to find the rate

Terminology

Gross rate = pure premium + expense loading + P&C provision (tariff)

Pure premium = claims & loss adjustment expense

Expense loading = production & operating expenses

Profit and contingencies (P&C) = return on capital and risk loading

Exposure unit = measure of loss exposure assumed by insurer

Written premium = premiums booked

Earned premium = pro-rata portion of premiums exposed to loss

Ratemaking in the Real World

- Prior losses are still in the process of settlement
- Loss data relate to occurrences that happened in the past, while rates are made for future claims
- Prior insured population will not be the same as the future insureds
- Insurance company operations may be different from the past
- Multiple adjustments may need to be made

The Ratemaking Process: Costs

- Adjust past losses to their ultimate cost
  - — Final cost after all the claims are settled
- Adjust the loss experience to reflect future costs
  - — Factors affecting the size of a claim (severity)
    - Inflation, legislative changes, behavior changes
  - — Factors affecting the number of claims (frequency)
    - Traffic density, law enforcement efforts
- Adjust expenses to reflect changes in the insurer's operations
  - — Web-based sales, automated claims handling

The Ratemaking Process: Insureds

- Future insureds will not exactly mirror the past
  - — More insureds => more losses
  - — Returning insureds => fewer losses
  - — Change in the mix of types of insureds => more or fewer losses or more or less costly claims
  - — More vehicles per policy => more claims per policy
  - — More sales => more claims?
    - Might already be captured in trend

Actuarial Ratemaking

- Two processes generally used
- Pure premium method
  - — Project exposures to be insured (eg #vehicles)
  - — Project total fixed costs per exposure = losses + some expenses such as claims handling and general overhead
  - — Adjust for expenses that depend on the premium (variable expenses), such as sales commissions or taxes and the insurer's profit
  - — Result is the amount of premium needed per exposure

Actuarial Ratemaking

- Two processes generally used
- Loss ratio method
  - — Start with past premiums and past losses
  - — Adjust premiums to current rate levels and for any expected changes in the exposures
  - — Adjust losses to ultimate cost and trend

- — Project future fixed expenses
- — (Adjusted losses + fixed expenses) / adjusted premiums = projected loss ratio
- — Compare projected loss ratio to 100% – variable expense%
- — Result is the indicated percentage change in the rates

Examples

- 100 exposures
- Current rate is 1000 per exposure
- Known losses are 60,000
  - — Adjusted to ultimate and for trend = 75,000
- Current fixed expenses are 15,000
  - — Adjusted for administrative changes = 20,000
- Variable expenses and profit are 20% of premiums

Examples

• Pure Premium Method	• Loss Ratio Method
• Proj losses per exposure = 75,000 / 100 = 750	• Proj premiums at current rates are 100 x 1000 = 100,000
• Proj fixed expense per expenses exposure = 200	• Proj losses + fixed = 95,000
• Need 950 + 20% of premium per exposure = (950) / (100%-20%) = 950/80% = 1187.5	• Proj loss ratio = 95%
	• 100% - variable % = 80%
	• Indicated change = 95%/80% - 1 = +18.75%

Other Factors in Ratemaking

Investment Profit

Sources:

Investment income
Realized capital gains
Unrealized capital gains

Rate Regulation

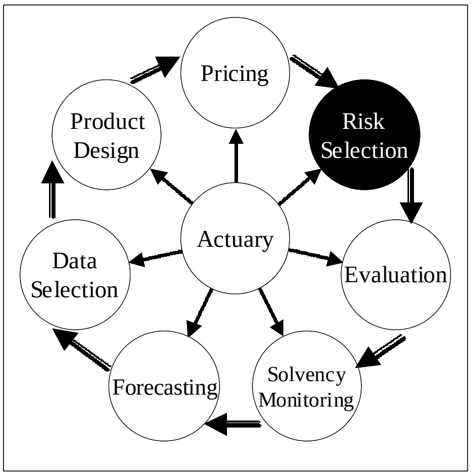
Statutory standards
Administration
State-made rates
Prior approval
Open Competition

Earned By:

Loss Reserve
Unearned Premium Reserve
Allocated surplus

Amount Varies by Length of Payout Pattern

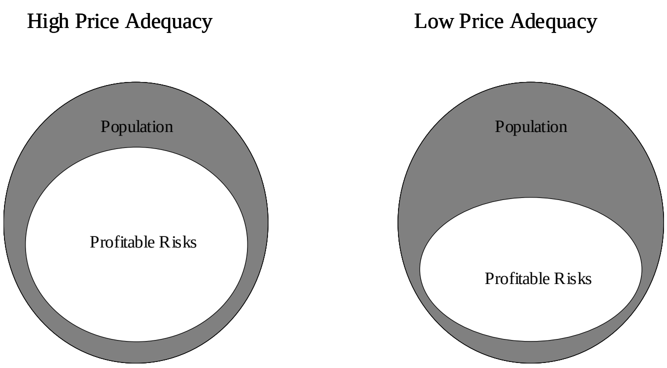
The Insurance Control Cycle



Risk Selection (Underwriting)

- Pricing is imperfect
  - — And the rate that is charged may not be what the actuary calculated
- Some risks will be more profitable than others
  - — The risk with the lowest cost may not be the most profitable
- Identifying and targeting more profitable risks can provide a dramatic competitive advantage
- Regular actuarial analysis of profitability by class is necessary

Risk Selection Depends on Price Adequacy

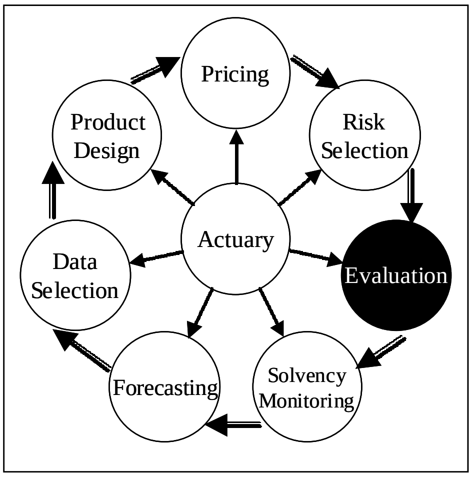


Risk Selection

- Important even in regulated markets
  - — Identify cross subsidies
  - — Target market to overpriced risks, reduce exposure to underpriced risks

- Regular reviews
  - — Pricing structure can become out of date
  - — Competitor rates can change (in some markets)
  - — Competitor marketing influences demand

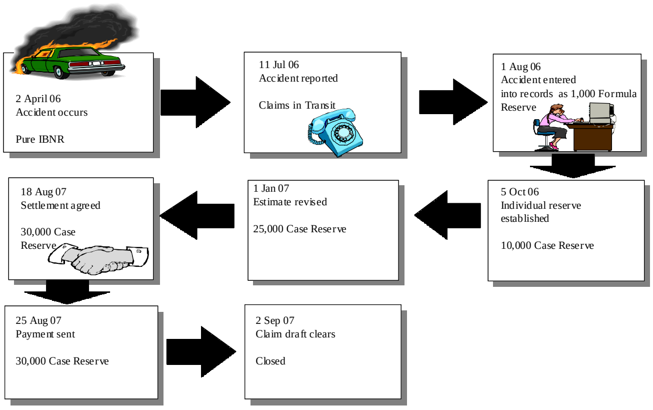
The Insurance Control Cycle



Experience Evaluation = Reserving

- Definition
  - — Loss Reserve = Amount needed to settle unpaid claims
- Why is reserving important?
  - — Accurate evaluation of financial condition & underwriting income
  - — To under reserve is to under price

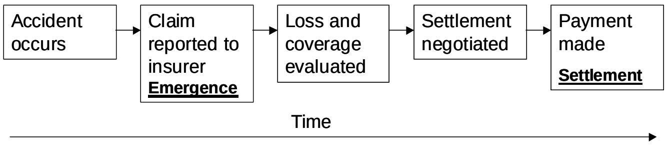
Life Cycle of a Claim Reserve



Aggregating Losses

- Claims are usually grouped by when the accident occurs, often by calendar year ("accident year")
- Aggregate data can then be studied for patterns in the growth of the reported losses
- Actuarial Reserving is done at the aggregate level

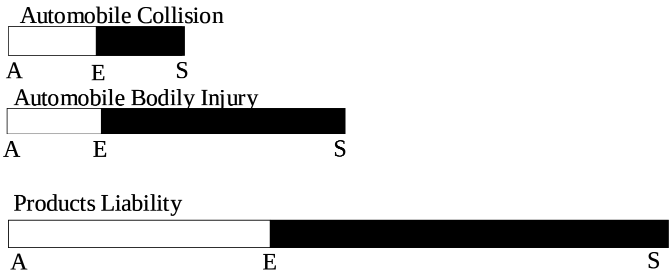
The Claims Settlement Process



- Each general insurance coverage shows a different pattern of reporting and settlement
- Length of time between steps in the process determines estimation method for setting reserves

Considerations:"Emergence/Settlement

Emergence (E) vs. Settlement (S) from Accident Date (A)



Actuarial Reserve

- Total outstanding liability
- Accounts for
  - — IBNR = "Incurred but not Reported"
  - — IBNER = "Incurred but not Enough Reported"
- = Case Reserves + IBNR + IBNER
- = Ultimate Cost – Paid to date
- May be estimated in pieces and added together or by estimating ultimate costs and subtracting payments

Small, quickly reported claims

- Example: Theft loss to the insured's property

- Loss reported promptly to insurer
- Easily evaluated small losses
- Payment made quickly
- Possibly no claim reserves are set
- Reserve can be set in bulk at about two months payments

Larger, quickly reported claims

- Example: Fire loss to the insured's property
- Loss reported promptly to insurer
- Relatively easy to evaluate cost
- Reserve = claim reserves + (possible) small provision for IBNR claims

High frequency, quick settlement

- Example: Automobile liability claims
- Lag between accident and report due to third party claimants
- Relatively easy to evaluate
- Claims similar to one another in nature and cost
- Reserve best set by grossing up known losses (loss development methods)
- Based on observed growth in prior years' experience

High frequency, slow settlement

- Example: United States workplace injury (workers compensation)
  - — Covers both medical costs and lost wages
  - — Benefits may extend to retirement age
- Most claims very quickly reported
- Claims similar to one another in nature and cost
- Difficult evaluation
  - — Extent of medical costs
  - — Length of disability
- Reserve best set by blending known losses with a forecast based on prior years' experience (Bornheutter/Ferguson methods)
- Weighted average – weight to known losses increases over time

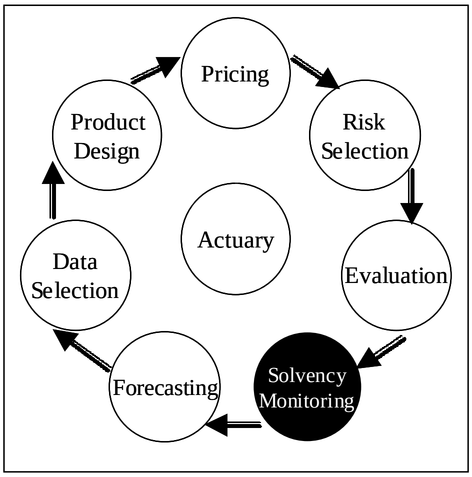
Low frequency, large claims

- Example: Excess of Loss Reinsurance
- Moderate gap between accident and claim report
- Claims reported to date do not predict number or size of other claims
- Moderate development on known claims
- Set reserves for additional development on known claims (loss development but only on known claims - IBNER)
- Estimate number and size of IBNR claims separately

Very long report lag

- Example: Asbestos injuries, HIV, Environmental damage
- Long time gap between exposure and known injury
- Difficult evaluation of claim cost
- Reserves usually not set based on date of injury
- Exposure-based studies estimate number of additional claims
- Average claim size may be based on data from outside insurance

The Insurance Control Cycle



Surplus Measurement

- Surplus = total assets – total liabilities = owners' equity
- Surplus provides protection to policyholders in

case losses are greater than premiums.

- An insurer cannot operate long without surplus
  - — Eventual failure is certain
- Accurate measurement of total liabilities is critical to measurement of surplus

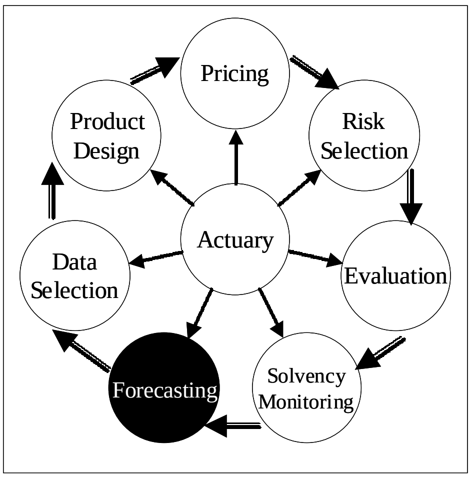
Actuaries in Solvency Monitoring

- Insurer actuary is responsible for reserves, the largest liability on the insurer's balance sheet
  - — May have a statutory role in certifying the reserves
- Auditor actuary provides professional peer review
  - — Or may certify the reserve in the absence of an internal actuary
- Regulator actuary provides oversight, additional review

Actuaries in Solvency Monitoring

- Solvency regulation
  - — Risk based capital approaches require a minimum surplus that reflects the type of business written and the riskiness of the assets held by the insurer
  - — Some jurisdictions require dynamic evaluation of surplus using scenario testing (Canada) or stochastic methods (Australia, UK)
  - — Dynamic financial analysis requires the integration of different risks: underwriting, financial & operational

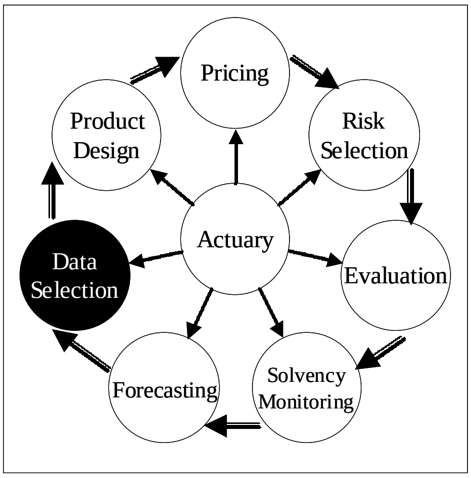
The Insurance Control Cycle



Forecasting and Budgeting

- Usually a Finance responsibility
  - — Involves many parts of an insurer
- Actuarial input critical
  - — Measurement of current and expected profitability
  - — Evaluation of the impact of outside trends
  - — Evaluation of the impact of operational changes

The Insurance Control Cycle



Data Selection

- Which came first, the actuary or the data?
- All actuarial analysis requires data
  - — But it an actuary may determine what data to collect!
  - — Experienced actuaries may start with reasonable assumptions, later adjusted by data
- Key issues for insurers
  - — Data availability
  - — Data accuracy
- Actuarial involvement early in the data design process ensures that the necessary elements will be captured

Data

- If it affects how a policy is rated

— Capture it!

— Include data capture in the rating process

- If it affects how a policy may be rated in the future or allows the insurer to identify better risks within a class

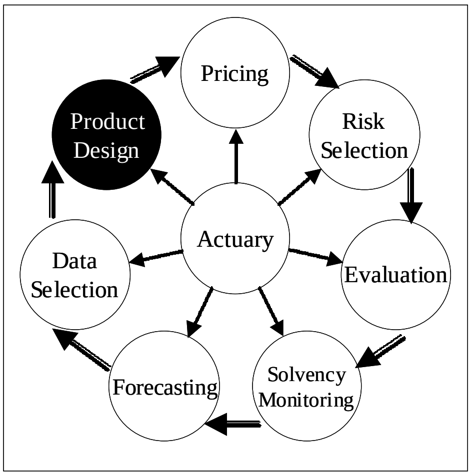
— Capture it

— But take care that the coding is accurate

— Data input for data's sake results in errors

— Try to capture or verify from another source

The Insurance Control Cycle



Insurance Product Design

- Why People Buy Insurance

— Risk Aversion
Prefer a known, certain cost (the premium) to an unknown loss even if the premium exceeds the expected value of the loss

— Asset protection
Even if they can afford a loss, they may choose to buy insurance in order to avoid depleting their assets

— Company Expertise
The insurer may be able to help the insured protect their belongings (property insurance), their employees (workers' compensation) or avoid a lawsuit (liability insurance)

Actuarial Role in Product Design

- Given a proposed change in what is covered

— What is the expected impact on costs?

— Is a provision likely to influence insured behavior?

— Are there interaction effects with other coverages?

Product Design Example #1

- Increase in the minimum liability limit for compulsory auto insurance

— More coverage for more severe claims

— More incentive for claimants to inflate their injuries!

— Costs usually increase more than the difference in the prior experience

Product Design Example #2

- Supplementary workers compensation benefits for injured workers who can return to work are reduced

— Government expects significant cost savings

— Strong disincentive not to return to work

— Wage replacement costs rise

— Actual savings are less than anticipated

- In a very complicated product, changes in one area can have unanticipated consequences

Actuarial Role in Product Design

- How should risks be classified?

— Insurance requires sharing of risk across a group of insureds

— The larger the group, the more variance in individual risk characteristics

— Identification of risks within a class that are relatively over priced allows for a competitive advantage

— Requires additional data!

Actuarial Students – Recent Development

Dr. R.Kannan, President, Actuarial Society of India

Class of Membership	As at 31.3.1999	As at 31.3.2000	As at 31.3.2001	As at 31.3.2002	As at 31.3.2003	As at 31.3.20004	As at 31.3.2005	As at 31.8.2005
Fellows	146	143	218	204	200	204	203	207
Affiliates	-	-	4	19	23	24	18	23
Associates	87	106	122	122	118	120	136	136
Students other than Associates	442	471	604	1,494	1,905	2,815	3,486	4,614
Total	675	720	948	1,839	2,246	3,163	3,843	4,980
Hon. Fellows	0	0	5	6	6	6	6	6
Grand Total	675	720	953	1,845	2,252	3,169	3,849	4,986

Class of Members	Resident in India	Resident in rest of the world	Total
Fellows	132	75	207
Affiliates	5	18	23
Associates	128	8	136
Students other than Associates	4567	47	4614
Honorary Fellows	3	3	6
Total	4833	151	4984

Age Group	Fellows	Affiliates	Associates	Students (other than Associates)	Total
21-25	0	0	2	1497	1499
26-30	5	7	18	876	906
31-35	23	7	55	941	1029
36-40	24	2	28	607	661
41-45	19	1	12	135	167
46-50	13	3	4	35	55
51-55	22	2	11	29	64
56-60	6	1	3	13	23
61-65	19	0	0	4	23
66-70	29	0	2	1	32
71-75	19	0	0	2	21
76-80	18	0	1	0	19
81-85	2	0	0	0	2
86-90	6	0	0	0	6
91 & above	2	0	0	0	2
Total	**207**	**23**	**136**	**4614**	**4980**

2. Pass rate
3. Absorption rate
   - Facilities given by the companies
4. Issues:

   Pre-qualification
   - Quick burn-out
   - Unsustainable interest/commitment – clear taper off
   - Lack of time / coaching classes
   - Hand-holding by senior actuaries
5. Opportunities
   - **Life**
     - Pricing
     - Under writing
     - Valuation
     - Financial planning
     - MAD

- Risk management
- RBC

- **Non-Life**
  - Detariffing
  - File & Use
  - Data
  - Pricing
  - RBC
  - MAD
- **Healthcare**
  - Products development
  - Pricing
  - Reserving
  - Risk management & data issues
- **Pension**
  - Product development
  - Pricing
  - Risk management & issues
  - Annuity mortality table
- **Other areas**
  - Project management
  - BASEL II- banks
  - Derivatives market
  - Risk management

Conclusion:

- University/ Institutes offering actuarial courses
- ASI Policy

ROLE OF CASUALTY ACTUARIAL SCIENCE IN DE-TARIFFED MARKET

Praveen Gupta

- Present Situation
- Future issues
- South Korea learning
- United States
- Worldwide concerns
- Way forward

Current Scenario : INDIA

- Unlimited third party bodily injury / death cover
- Increasing global trade
- Listing of Indian Corporates at International bourses
- Outsourcing
- Detariffing
- Re-order of the pie / Consolidation
- Branch status to reputed reinsurers
- Data analytics
- Marine Cargo & Hull experience
- Dislike for deductibles / Deductible buy-back
- India on Map of insured CAT losses (Swiss Re)
- Health cost inflation
- Shortage of Actuaries
- Growing CAT losses
- Bird Flu
- PIL

What's in store ?

- Property price to fall in short term; segment in medium to long term (trigger for cyclicality ?)
- What happens to subsidies in liability & health (two of the fastest growing)?
- Reinsurance security!
- Unlimited third party!
- North American exposure (growing software & pharma)!
- Shift from claims made to occurrence basis?
- Return to underwriting?
- M & A; Consolidation

Conscience keeper : THE ACTUARY

- Adequacy of pricing
- Quality of Reinsurance
- Reserving

- Cyclicality : mitigation
- Vindication of liberalism & market forces

Activism Retrospective to perspective De tariffing = Underwriting

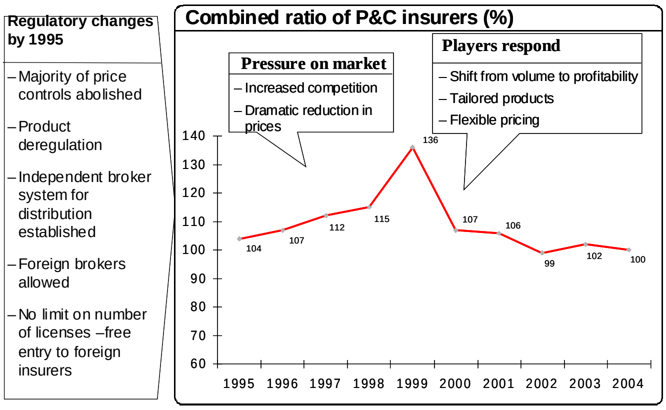
Classical function : THE P&C ACTUARY

- Compute premiums & reserves for insurance policies covering various risks
- Premiums being amount of money the insurer needs to collect from the policyholder in order to cover the expected losses, expenses and a provision for profit
- Reserves are provisions for future liabilities and indicate how much money should be set aside now to reasonably provide for future payouts.
- Quantifying the frequency & severity
- Also, amount of time that occurs before the loss of event
- Do not always predict aggregate future events often, the cost of financial liabilities that have already occurred.

Indian market; today, tomorrow?

World's largest market, the US??

DE-TARIFF – S.KOREAN EXAMPLE



Annual Survey of CAS thought leaders (2000):

Top four stories identified :

- Failure or near failure of various carriers (US & Australia)
- Deterioration of underwriting results
- Long awaited hardening of the insurance market (commercial lines & reinsurance in particular)
- Deficient loss reserves

No significant shift in last six years

Lloyd's Underwriter Survey (2006)

" More than half of those questioned believe that avoiding the 'boom and bust' nature of past cycles will be the most powerful way to strengthen the industry's reputation. But over two thirds said that industry has not made enough progress on the issue over the past year, and more needed to be done to address it"

Underwriters vs Actuaries ?!

S & P :

Insurer Reserving for Soft Market Years Remains Problematic !

"Ongoing legacy issues from those years which include the industry's overstatement of capital by an average of 16 percent after the WTC disaster, mean that reserves might still undergo more adverse development"

Chinks in the Armour :

- The issue of reinsurance collateral dominated the opening session of World Insurance Forum in Bermuda (Feb 2006)
- One of the recent feedbacks to the issue:

  " There is no incentive for US insurers to demand a change. The reinsurance market is globally oriented, and American insurers would lose the strength of collaterization that comes with alien reinsurers that makes respective insureds feel more comfortable especially with longer tail casualty claims. Shorter tail property claims can be handled through reinsurance brokers that deal with financially weaker reinsurers."

Diagnostics : US learnings

- Core activity (UNDERWRITING) had gone on a quarter century with no profit and sometimes grievous losses
- Investment income has been solid, and at times spectacular, it still is unable to hide hefty underwriting losses.
- ROE for the industry has been in the single digits for more than a decade. Much lower and much more volatile than our diversified financial services cousins

- Industry's loss costs, rose at a faster pace than underlying premium growth for more than a decade.

Diagnostics:

- Double digit medical cost increases, class action suits
- 300 billion dollar of total cases
- Three quarters of a million asbestos related claims that has bankrupted 73 companies and annihilated tens of thousands of jobs
- Tort system resembling a national lottery with a few big winners and the rest buyers

  Re 1 / Rs 100 covers! Unlimited Liability! Deductible buybacks! TP Claims as fixed deposits! Increasing North American exposure! Security compromise!

Cure:

- Self inflicted cyclicality must end – we know what causes it :

  - Undisciplined underwriting

  - Absence of actuarial price modeling

  - Optimistic reserving

  - Lack of self – discipline

  - "Cash flow underwriting"

  - Bad pricing drives out good pricing

All these symptoms are already here!

- And we know how to alleviate it !

  - Teaming underwriters, actuaries (life & non-life: bird flu) & claims team/s

  - Confrontational role; if necessary, in helping make data – driven business decisions & co-owing the results.

  - Understanding claims inflation, claims development, changes in market pricing

Predicting the winners!

- Transformation under way in property / casualty insurance, as UW is being transformed from art to science by new sources of data and powerful predictive modeling tools
- As predictive models expand, new winners will emerge and those who don't adapt to the times will find themselves imperiled
- Expect to see wider variation in combined ratios among companies over next several years
- Also notice more M&A activity as the capabilities of the winners become a valuable asset to acquire and the losers seek to exit

Profitability of non-life insurance

Role of underwriting

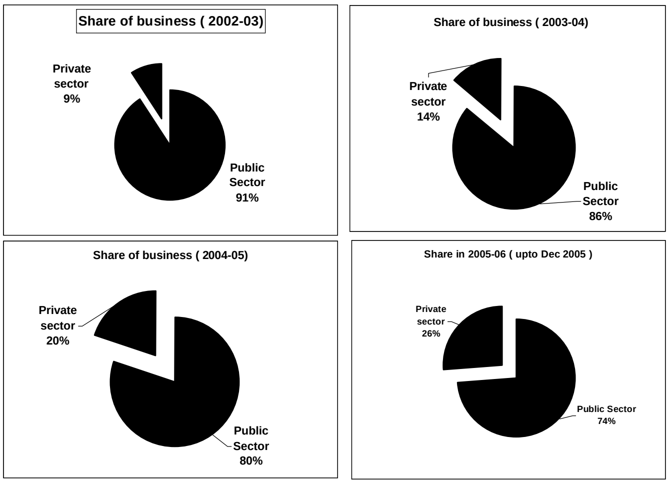
Shri Shrirang Samant

Presentation Structure

- Current Scenario
- Global Perspective
- Challenges
- The way forward

Current Scenario

General Insurance Business - Share of business



Business Mix

Public Sector	**2002-03**	**2003-04**	**2004-05**
Fire	19%	18%	17%
Marine	9%	7%	7%
Miscellaneous	73%	75%	77%
Total	**100%**	**100%**	**100%**

Private Sector	**2002-03**	**2003-04**	**2004-05**
Fire	33%	31%	26%
Marine	6%	7%	7%
Miscellaneous	61%	62%	67%
Total	**100%**	**100%**	**100%**

Story Behind the Numbers

- In 04-05, the market grew by 1980 Crores, of which
  - Motor 1042 Crores (52%)
  - Health 378 Crores (20%)
  - PA 129 Crores (6.5%)

...these are 'commodity' products, with little scope for underwriting

Competitive Strategies

- Acquire Market Share
- Leverage Reinsurance
- Rely on Cross Subsidy
- Pay-outs......

"In general Insurance business, large amounts are passed on to the insured as illegal rebates and then are accounted for by false entries in the Revenue accounts of insurance companies. .... many industrial concerns pocket such illegal rebates on the premium paid by the concerns under their control and such amounts go unaccounted for and untaxed. It is estimated that the consequent losses to the State amount to over a crore of rupees in taxes on such illegal payment."

Source: Insurance Business in India - 1956

Global Perspective

Industry Results

- P&C Sector returns v/s Cost of Equity
  - 6.5% v/s 11.5%
- Other Financial Sectors outperform P&
  - Asset Management, Banking, Life; 17 to 12 points
- Wide Performance range across P & C Sector.
  - Difference of 25 points between the top and the bottom

source : The Journey Revisited McKinsey & Co 2004

Causes

- Basic Characteristics of the Industry
  - Complexity
  - Growing Exposures
  - Product Pricing lag
- External Forces
  - e.g. tort litigation in US
  - Increasing frequency and severity of catastrophic losses
  - Structural issues in Motor TPPI
- Industry's failure/unwillingness to step up
  - underwriting discipline
  - Stakeholder education

Concerns

- Pricing deterioration
- expectation of continued reserve development
- loss cost inflation
- Higher reinsurance costs?
- Rating impact

What really matters....

A critical appraisal of success factors in General Insurance Business

An in-depth analysis....

- McKinsey Study: Pathways to Underwriting Excellence
- Phase 1: Results of 35 largest companies over 15 years, from 79 to 93 companies were classified as winners (9), above average (8) or underperformers (18) based on their 15 year combined ratio
- Phase 2: How the group performed between 94 to 02

.....Of those underwriting companies below average, 11 were acquired and 2 went out of business

Primary Conclusions

- long term success depends on a company's relative skill and insight in managing risk
- this is measured by the combined ratio
- Wide performance range across the sample
  - difference of 25 points between the top and the bottom

source : The Journey Revisited McKinsey & Co 2004

The best....

Ranked by operating ratio

Gen Re	89.1%
AIG	90.1%
Chubb	91.0%
GEICO	92.1%
Progressive	93.2%

- The lowest ranked had an operating ratio of 115.9%

  "..the most successful companies" generated virtually all of their" excess returns from underwriting performance "rather than above average growth rates...""

Challenges

Environmental

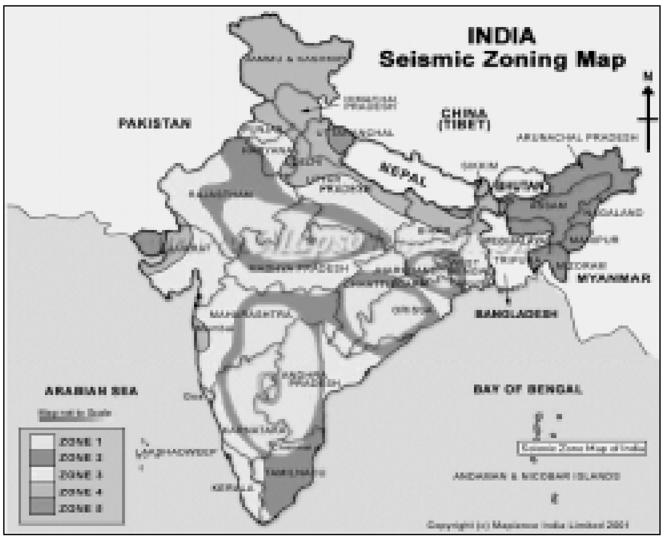
- Catastrophic Exposures
- Low Risk Quality
- Low buyer awareness

Earthquake Exposure

India is quake prone with threat levels equal to or higher than other eq. exposed areas (e.g. California, Mexico, Japan).

- 15 quakes over the past 100 years (MMI *6.0 or over)
- Majority of country has MMI in the 6 to 8 range:

  Zone 1/2 MMI 5-6



  Zone 3/4 MMI 6-7

  Zone 5 MMI 8+

  Mumbai 7

  Delhi 7

  Bangalore6

*MMI – Modified Mercalli Intensity

Systemic

- Tariff
- Motor Business
- Intermediaries
- Reinsurance

The way forward....

"..........long term success depends on a company's relative skill and insight in managing risk, as measured largely by the combined ratio."

Portfolio

Policy	Sum Insured - INR	Premium - INR
1. FIRE	600,000,000	700,000
2. FIRE LOP	100,000,000	150,000
3. MISC.	Various	150,000
4. Group Mediclaim		6,000,000

Claims:

- Mediclaim: 135%
- Fire/ Misc : NIL

Portfolio Analysis

INCOME		Property	GMC	Total
Gross Written Premium		1,100,000	7,894,737	8,994,737
Less : Obligatory Ceding	20.00%	220,000	1,578,947	1,798,947
Less : Treaty ceding	76.00%	836,000	-	836,000
Net written premium		44,000	6,315,790	6,359,790
Reinsurance Commission - obligatory	25.00%	55,000	394,737	449,737
Reinsurance Commission - treaty	38.50%	321,860	-	321,860
Total Income		**420,860**	**6,710,526**	**7,131,386**
EXPENSES				
Incurred claims		275,000	6,000,000	6,275,000
Acquisition cost	17.50%	192,500	789,474	981,974
Management Expenses	12.00%	132,000	947,368	1,079,368
Investment @ 6%	6.00%	(26,400)	(189,474)	(215,874)
TPA Charges	10.00%		480,000	480,000
Total Expenses		**573,100**	**7,547,368**	**8,120,468**
Loss / Gain		(152,240)	(836,842)	(989,082)

Enterprise Risk Management for Non-life Insurance Companies

Rajendra Shah

ERM Definition

- It is the discipline with the help of which an organization in any industry can
  - assess
  - control
  - exploit
  - finance
  - monitor

RISKS from all sources ......

Purpose of ERM

- To increase organization's value to its stakeholders
  - investors, analysts, rating agencies, regulators and the press on one hand

    and
  - depositors and policyholders on the other hand

ERM : Need

- Risks are many, complex in nature and interact to have compound impact
- External pressure from regulators, rating agencies, institutional investors and corporate governance oversight bodies
- Expectations of shareholders to have stable/ growing and predictable earning

"Risk Types"

- Hazard Risk
- Financial Risk
- Operational Risk
- Strategic Risk

Hazard Risks

- Casualty loss situations
- Property damage/loss due to fire and natural perils
- Business Interruptions
- Liability Claims from employees, customers, etc.
- Hazard Risks can be handled by
  - Insurance, Avoidance, Transfer

Financial Risks

- Price Fluctuations in Commodity, Asset Values, Interest Rate, Exchange Rates
- Cash Flow, Call Risk, Opportunity Cost
- Credit Risk (Default or Downgrade risk)
- Inflation Rate fluctuations
- Hedging risk

Operational Risks from

- Business operations
- Empowerment
- Information Technology
- Information / Business Reporting

Strategic Risks

- Credibility loss/damage
- Competition
- Change in Customer needs
- Variation in Demographic and social/cultural trends
- Technology innovations
- Fund availability
- Change in regulations/government policies

ERM Infrastructure

Analytics

\- Models

Data sets

\- Risk Information

\- Transactions

\- Internal data (customers, risk limits, products)

\- Market data

Reliable Communications Operations Impact of technology

Risk Process

- Risk awareness
  - establish context and identify
- Risk measurement
  - Assess, Analyze, Quantify, Integrate
- Risk control
  - Prioritize, Treat, Exploit
- Monitor and Review

Performance Measures

- Variance
- Standard Deviation
- Semi-variance or Downside Standard Deviation
- Below Target Risk (BTR)

Performance Measures for Insurance Companies

- Economic Capital
- Risk Adjusted ROC i.e. Expected Net Income divided by Economic Capital
- Embedded Value
- Risk Based Capital

Measures of Risk

- Solvency related Measures
  - Probability of Ruin
  - Shortfall Risk
  - Value at Risk (VaR)
  - Expected Policyholder Deficit
  - Tail Value at Risk (Tail VaR)
  - Tail Events
  - Wang Transform (WT)
  - Variance based Risk Measure

ERM Analytics / Tools

- Analytical Methods

- Simulation Methods
- Statistical Methods (including Standard Deviation Method, Wang Transform, Two Factor Model)
- Structural Methods
- Dynamic Financial Analysis

Employees need to know and understand Risk Concepts

- Exposure
- Volatility
- Probability
- Severity
- Time horizon
- Correlation
- Capital

CRO to Manage Risk

- Define risk
- Gather information
- Use information and analysis to
  - Control risk
  - Increase firm value

Failure Cases due to Mismanagement of Risk

- Mismanagement of derivatives
  - Gibson Greetings
  - Proctor and Gamble
  - Barings Bank
  - Orange County
- Model failure
  - Long Term Capital
- Accounting improprieties
  - Enron
  - Arthur Andersen
  - Bank of Karad
  - Security scams of 1992 in India

Some Successful Strategies"

- Identify and Fix the things before they become problems
- Constantly review Performance of Distribution Channels and Explore new options
- Product Performance to review Economic Capital employed for each product
- Consider Asset Allocation Strategies (Benefit : Enhanced expected ROI)

Successful Strategies – cont…

- Use of Hedge strategies, Stochastic interest rate models for Investments
- Integrated stop-loss Reinsurance Strategy (Benefit: Lowered Downside Risk on Operating Income)
- Rigorous scrutiny of Claims
- Use of "real options" model in liability management
- Integrate Risks
- Make ERM part of Enterprise Culture

(Photos taken at the Seminar can be seen in the following pages).

Photos taken at the Seminar on Casualty Actuarial Science

A Section of the participants

A Section of the participants

A Section of the participants

A Section of the participants

Shri S. J. Gidwani welcomes (L to R)
Shri M. G. Diwan, Mr. S. Balachandran,
Ms. Mary Frances Miller, Prof. Rajendra Shah,
Shri K. K. Srinivasan

Shri Manish Raikar presents a bouquet to
Ms. Mary Frances Miller

Shri M. G. Diwan lights the traditional lamp

Shri B. Chakrabarti delivers the Valedictory address

INDUSTRY NEWS

The 19th Fair Conference 2005 was organised by General Insurance Corporation of India on 19-22 September, 2005, in Mumbai. The theme of the Conference "Insurance and Reinsurance Scenario — Future Outlook."

Mr. C. S. Rao, Chairman, Insurance Regulatory and Development Authority was the Chief Guest.

Mr. R. K. Joshi, Chairman, Organising Committee delivered the welcome address. The Conference was addressed by Mr. Albert J. N'duna, outgoing President of FAIR, Mr. Ezzat Abdel-Bary, Secretary-General of FAIL and Mr. G. C. Chaturvedi, Joint Secretary (Banking & Insurance) Government of India.

Mrs. B. Ramani, Co-ordinator, Organising Committee, proposed a vote of thanks.

The topics and speakers were as follows :

1. Effects of Liberalisation on Indian Insurance Market — An Overview - Mr. C. S. Rao and Mr. A. K. Shukla
2. Development of Technical Skills/Know-how in the Afro-Asian Region - Mr. D. Sengupta and Mr. Anwar Mohd. Hassan
3. Weather Insurance & Derivatives in Developing Countries – An Alternative to Agricultural Insurance - Dr. Surjeet Singh and Mr. Gregor Flodin
4. Recent Threats to Insurance Sector – Terrorism and Cyber Crimes - Mr. K. N. Bhandari and Mr. T. T. Mirilla
5. Transacting Facultative Reinsurance through Web enabled Technology – Mr. Priyadarshi Ghosh
6. Effect of Soft Market Conditions – Bdon or Bana for Insurers/Reinsurers - Mr. S. V. Mony, Dr. Abdolnaser Hemmati and Mr. Bokary H. Kamara

(Note : Some of the papers presented are reproduced in the Journal with the kind permission of G.I.C. of India.)

EXAMINATION TIME-TABLE NOVEMBER 2006

MORNING SESSION 9.30 A.M. TO 12.30 P.M.

AFTERNOON SESSION 2.00 P.M. TO 5.00 P.M.

Sub. No.	Subject Title	Examination & Branch
	Sunday, 12th November, 2006	
	MORNING SESSION	
01	Principles of Insurance	Licentiate - Life & Non-Life
21	Information Technology	Associateship - Life & Non-Life
31	Insurance Salesmanship	CIS - Life & Non-Life
88	Marketing & Public Relations	Fellowship - Life & Non-Life
S - 01	Principles & Practice of Insurance & Survey and Loss Assessment	Surveyors Examination
	AFTERNOON SESSION	
02/30	Practice of Life Assurance	Licentiate & CIS - Life
11/32	Practice of General Insurance	Licentiate & CIS - Non-Life
26	Life Assurance Finance	Associateship - Life
56	Fire Insurance Claims	Associateship - Fire
66	Marine Insurance Claims	Associateship - Marine
77	Engineering Insurance	Associateship - Miscellaneous
78	Miscellaneous Insurance	Associateship - General
89	Management Accounting	Fellowship - Life & Non-Life - optional
97	Legal Aspects of Industrial Relations	Fellowship - Life & Non-Life - optional
98	Advanced Information Technology	Fellowship - Life & Non-Life - optional
99	Asset Management	Fellowship - Life & Non-Life - optional
S - 06	Motor Insurance	Surveyors Examination
	Sunday, 19th November, 2006	
	MORNING SESSION	
12	Insurance Business Environment	Licentiate - Life & Non-Life
23	Application of Life Assurance	Associateship - Life
52	General Fire Hazards	Associateship - Fire
62	Commercial Geography	Associateship - Marine
72	Motor Insurance	Associateship - Miscellaneous/General
82	Statistics	Fellowship - Life
86	Risk Management	Fellowship - Non-Life
S - 05	Engineering Insurance	Surveyors Examination
	AFTERNOON SESSION	
25	Life Assurance Management	Associateship - Life
54	Fire Insurance Underwriting	Associateship - Fire
63	Marine Clauses	Associateship - Marine
73	Personal Accident, Sickness & Misce. Insurance	Associateship - Miscellaneous
79	Liability and Engineering Insurance	Associateship - General
90	Human Resource Management	Fellowship - Life & Non-Life
S - 07	Miscellaneous Insurance	Surveyors Examination
	Sunday, 26th November, 2006	
	MORNING SESSION	
22	Life Assurance Underwriting	Associateship - Life
51	Fire Hazards of Specific Industries	Associateship - Fire
61	Cargo Loss Prevention	Associateship - Marine
67	Marine Insurance	Associateship - General
71	Agricultural Insurance	Associateship - Miscellaneous
83	Group Insurance & Retirement Benefit Schemes	Fellowship - Life
87	Law & Economics of Insurance	Fellowship - Non-Life
S - 02	Fire Insurance	Surveyors Examination
	AFTERNOON SESSION	
24	Legal Aspects of Life Assurance	Associateship - Life
55	Consequential Loss (Fire) Insurance	Associateship - Fire
57	Fire & Consequential Loss Insurance	Associateship - General
65	Marine Underwriting	Associateship - Marine
74	Liability Insurance	Associateship - Miscellaneous
81	Mathematical Basis of Life Assurance	Fellowship - Life
85	Reinsurance	Fellowship - Non-Life
S - 03	Marine Cargo Insurance	Surveyors Examination
	Sunday, 3rd December, 2006	
	MORNING SESSION	
S - 08*	Loss of Profit Insurance	Surveyors Examination*
	AFTERNOON SESSION	
S - 04*	Marine Hull Insurance	Surveyors Examination*

** Only Delhi, Mumbai, Kolkata & Chennai Centre.*