RISK, RISK REGULATION AND RE-INSURANCE IN THE GLOBAL SOUTH

Thesis submitted to the Jawaharlal Nehru University in partial fulfilment of the requirement for the award of the degree of

DOCTOR OF PHILOSOPHY

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Date: 28 August, 2017

Declaration

I declare that the thesis entitled ***"Risk, Risk Regulation and Re-Insurance in the Global South"*** submitted by me in fulfillment of the requirement for the award of the Degree of Doctor of Philosophy of Jawaharlal Nehru University is my original work.

The thesis hasn't been previously submitted for any other degree of this University or any other University.

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“VAKRATUNDA MAHAAKAAYA SURYAKOTI SAMAPRABHAA NIRVIGHNAM KURUMEDEVA SARVAKAARYESHU SARVADAA”

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List of Abbreviations

- CII: Confederation of Indian Industries
- CVRD: Companhia Vale de Rio
- DOC: Department of Commerce
- EC: European Community
- ECOSOC: United Nation's Economic and Social Council
- EU: European Union
- FDI: Foreign Direct Investment
- FERA: Foreign Exchange regulation Act
- FICCI: Federation of Indian Chamber of Commerce and Industry
- FIPB's: Foreign Investment Promotion Board.
- GATS: General Agreement on Trade in Services
- GATT: General Agreement on Tariffs and Trade
- ITO: International Trade Organization
- ITC: International Trade Commission
- MFN: Most Favoured Nation
- NAFTA: North American Free Trade Agreement
- NGO: Non Governmental Organization
- TNC: Transnational Corporations
- TRIP's: Trade Related Intellectual Property Rights
- TRIM's: Trade Related Investment Measures
- UK: United Kingdom
- UNCTAD: United Nations Conference of trade and development
- UR: Uruguay Round

- US United States
- USDOC: United States Department of Commerce
- USITC: United States International Trade Commission
- WB: World Bank
- WTO: World Trade Organization

Table of Cases

Cases:

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- *Case of Iowa Mutual Tornado Insurance association vs. Timmons, 105; N.W. 2d 209.*
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- *Citadel Ins. Co. vs. Atlantic Union Ins. Co. (1982), 2 Lloyds Rep 543.*
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- *Versicherugs und Transfort Ag. Dauga vs. Henderson (1934) 39 Com. Cas. 312, 316.*
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- *Citizens Insurance Co. of Careda vs. Parsons (1881) 7 App. Cas. 96 PC.*
- *Mackie vs. European Assurance Society (1869) 21 LT 102.*
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- *Mackie Vs. European Assurance Society (1869) 21 LT 102.*
- *Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908.*
- *Baker vs. Black Sea & Baltic General Insurance Ltd. [1998] 2 ALL ER 8333.*

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- *GE Reinsurance Corp. vs. New Hampshire Insurance Co. [2004] Lloyd's Rep.IR 404.*
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- *Re Yager & Guardian Assurance Co. (1912) 108, LT 38.*
- *Citizens Insurance Co. of Careda vs. Parsons (1881) 7 App. Cas. 96 PC.*
- *Mackie vs. European Assurance Society (1869) 21 LT 102.*
- *Baker vs. Black Sea & Baltic General Insurance Ltd. [1998] 2 ALL ER 8333.*
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- *GE Reinsurance Corp. vs. New Hampshire Insurance Co. [2004] Lloyd's Rep.IR 404.*
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- *Balfour vs. Beaumont (1982) 2 Lloyds Rep 493, 499 (Ass'd (1984) 1Lloyds Rep 272).*
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- *Lambert vs. Co-operative Ins. Soc Ltd. (1975) 2 Lloyds Rep 485.*
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- *Great Atlantic Ins. Co. vs. Home Ins. Co. (1981) 2 Lloyds Rep. 219.*
- *Balfour vs. Beaumont (1982) 2 Lloyds Rep 493, 496.*
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- *Baker vs. Black Sea & Gen Ins. Co. (1996) L.R.L.R 353.*
- *Phillips vs. Dorintal Ins. Co. (1987) 1 Lloyds Rep 482.*
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- *Forsikringasakieselskaper Vesta vs. JNE Butcher (1989) AC 852.*
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- *Kelly vs. London and Staffordshire Fire Ins. Co (1883) Cab. & Ell. 47, 48.*
- *Wooding vs. Mon-mouth-shire Indemnity Soc. (1939) 4 All E.R. 570, 580, 581,592.*
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- *Lake vs. Reins Corporations Ltd. (1967) 3 S.A. 124 (W), 128.*
- *Kirby vs. Cosindit Societa per Azioni (1969) 1 Lloyds Rep. 75.*
- *Clark vs. Tull; (2002) Lloyds Rep. IR 524.*
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- *Onkar Lal Bajaj vs. Union of India (2003) 2 SCC 673.*
- *Durga Shanker Mehta vs. Raghuraj Singh, AIR, 1954, SC. 520.*
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- *Case of Iowa Mutual Tornado Insurance association vs. Timmons, 105; N.W. 2d 209.*

CONTENTS

If[1]

If you can keep your head when all about you
Are losing theirs and blaming it on you,
If you can trust yourself when all men doubt you,
But make allowance for their doubting too;
If you can wait and not be tired by waiting,
Or being lied about, don't deal in lies,
Or being hated, don't give way to hating,
And yet don't look good, nor talk too wise:
If you can dream and not make dreams your master;
If you can think and not make thoughts you aim;
If you can meet with Triumph and Disaster
And treat those impostors just the same;
If you can bear to hear the truth you've spoken
Twisted by knaves to make a trap for fools,
Or watch the things you gave life to, broken,
And stood and build' em up with worn-out tools:
If you can make one heap of all you winnings
And risk it one turn of pitch-and toss,
And lose, and start again at your beginnings
And never breathe a word about your loss;
If you can force your heart and nerve and sinew
To serve your turn long after they are gone,
And so hold on when there is nothing in you
Except the Will which says to them: 'Hold on!'
If you can talk with crowds and keep your virtue,
Or walk with Kings – nor lose the common touch,
If neither foes nor loving friends can hurt you,
If all men count with you, but none too much;
If you can fill the unforgiving minute
With sixty seconds' worth of distance run,
Yours is the Earth and everything that's in it,
And- which is more – you'll be a man, my son!

[1] **By- Rudyard Kipling ('Brother Square'–Toes- Rewards and Fairies) - 1943.**

Prologue

Prologue

We have come a long way from the days of the ancient barter system to the capitalism of today. The world economy has undergone a complete metamorphosis, but the dynamic process of change continues.

'Risk', 'Risk regulation' and 'Re-insurance' is very complex subject in its own way. There is a broad spectrum of opinion available in literature on this subject. It could be analyzed from various dimensions.

It's entangled in various subjects and each subject has an important role to play in its development. A Chinese proverb defines: "*One should always have in the background of one's mind a multiplicity of definitions covering the subject at hand, in order to prevent one-self from accepting the most obvious*".

I also remembered Cardozo who said, "*If the result of a definition is to make (facts) seem to be illusions, so much the worse for the definition; we must enlarge it till its broad enough to answer to realities*". [2]

This cleared the '*spaghetti bowl*' within me and I proceeded for my research.

[2] Professor J.L. Brierly, (1936) "The Rule of Law in International Society,"*7, Nordisk Tidsskrift for International Ret, Acta Scandinavica Juris Gentium, Pg.3,15.*

Chapter 1

Introduction

1.1 Introduction

1.2 Objective of the Study

1.3 Scope and Limitation of the Study

1.4 Research Questions

1.5 Methodology

1.6 Plan of the Study and Chapterisation

Chapter 1

Introduction

1.1 Introduction: Risk is an important topic in the contemporary world. With the passage of time word 'risk' has become very common and it's being applied to plethora of situations. The concept of risk emerged with the maritime ventures in sea - it was initially used to describe the **perils**[3] that could occur over a sea voyage. In this concept of risk, the idea of any human fault and responsibility was excluded and risk was perceived as a 'natural event' rather than a 'man-made' one.

A change in the meaning of risk is associated with 'modernity', which came into being in the fifteenth and sixteenth century with the 'Enlightenment'. Seen as the key to human progress and social order, the Enlightenment pushed to gain objective knowledge of the world through 'scientific exploration' and 'rational thinking'. It came to be assumed that social and natural worlds follow laws that can be measured, calculated and therefore can also be predicted. Thus it has come to be that human beings attempt to estimate the likelihood of an event happening, and steps are taken accordingly to mitigate its impact.

The financial world of today has been badly scalded because financial institutions have found themselves to be vulnerable to surprising catastrophic events that have not been prevented by risk management. It needs to be understood that risk management is just not about giving a magic formula that can control these events but rather its purpose is to improve the future and not explain the past.

Risk experts are obsessed in reconciling historical data to analytical, convenient, theoretical models, ignoring the possibility that the conditions, which caused the historical event to occur will not apply in the future.

'Uncertainty' is said to be a by-product of mathematical computational table, statistical analysis and probability of loss based on existing knowledge and new information, but the question whether it is really so is not clearly answered. No one knows exactly what will happen in the future, the possibility of happening of an event. Life is, after all, uncertain and

[3] *Thames and Mersey Marine Insurance Co. Ltd. vs. Hamilton Fraser and Co. 'Inchmaree,' 1887, 12 AC 484, HL Pg. 492*. In this case Lord Bramwell said: "*Every accidental circumstances not the result of ordinary wear and tear, delay, or of the act of the assured, happening in the course of navigation of the ship and incidental to the navigation and causing loss to the subject matter of insurance*."

we simply react to events as they unfold. Uncertainty is one of the prime factors that should be considered in risk analysis and risk assessors should understand uncertainty rather than work around the issue.

In this endeavour, perspectives from a variety of disciplines are useful. For one, Philosophy a subject that deals with the abstract issues should inform risk analysis and risk management. It is unfortunate that we seek the refuge of scientific, factual inputs to look at risk and overlook the importance of inherent science that is based on the information of philosophy.

After survey of literature, I found the writing around insurance/reinsurance mostly concerned with matters of technical and professional interest. The 'political philosophy of insurance' remains unexplored. Additionally, the 'political economy of insurance' business as it is conducted in the real world is also unexplored. It poses a fundamental question in the contemporary international political economy of insurance.

It needs to be asked: Whether reinsurance is an indispensable component of global insurance economy? It is also vital that the function of the global insurance market regulators be understood analytically. We also have to understand the divergent sets of regulations under which they operate. How much power does global insurance business exercise? Why and on whom this power of insurance is exercised? How does it favour them? How handful of reinsurance companies are making fortunes in world reinsurance system or international political economy of insurance.

Governments in the emerging economies are spending a lot of energy on 'privatization' and 'structural reforms', pushed by institutions like IMF that are not the true representative of the nations they serve but are doing *'global governance without a global government'*[4].

Insurance reduces ones incentive to take care and be prudent. A 'bailout' followed in the contemporary international political economy in the event of financial crisis is like 'free insurance'. If you are a lender, you will take less care in screening your applicants when you know, you will be bailed out if the loans go sour.

In the socialist political economy like Soviet Union the State was the 'universal insurer'. It was always the state that decided which risks should be translated into costs, and it was the state which decided, who should bear the costs. In the socialist economic system, the cost was

[4] Joseph E. Stiglitz, "*Globalization and Its Discontents*," W.W. Norton & Company, New York, 2002, Chapter. 01, 'The Promise of Global Institutions', Pg. 06-13.

imposed on the citizens as an 'administered price'. However in the capitalist's economic system, the cost falls on the 'consumers' of all goods and services in which insurance plays a major part.

To reduce the 'risk' of foreign investment and increasing foreign debt, World Bank scheme came in 1988, it produced a General Agreement to set up the Multilateral Investment Guarantee Agency [5] (here in after MIGA), which would write contracts, underwriting the investments risks of large projects where Lloyds of London were hesitant to underwrite because of the 'political risk.'[6]

If the insurance business is left to the market, the rich will choose to translate some elements of risk into a 'cost,' through insurance premiums. The poor will keep paying the 'premium' and end up with only the 'risk'. In this context it is important to see whether the trickle-down effect occurs in the international political economy.

An analogy over here can be helpful in framing the problem: Insurance is a financial service open like a Hotel, to rich and poor alike, but whose customers are those who are able to pay the 'cost' and whose involvement in economic transactions gives them the means as well as the motive for doing so.

The very notion of 'regulation' is based on market failure. Economics has lots of influence in construction of 'public policy'. But does it help in social welfare? Often enough, social inequality still remains in spite of pursuing economically 'sound policies'. Policy makers are always under the influence of 'interest groups' even with the best of their intentions. They are not irrational but rationally ignorant about social realities.

[5] The World Bank, a multilateral lending agency and MIGA's parent company, was formed over 40 years ago. It consists of the International Bank for Reconstruction and Development, the International Development Association, and the International Finance Corporation, as well as MIGA. MIGA entered the political risk insurance market in 1988. One of its basic objectives is to increase the flow of capital and technology to developing countries… by complementing government sponsored and private investment guarantee programs. Malcolm D. Rowat, Multilateral Approaches to Improving the Investment Climate of Developing Countries: The Cases of ICSID and MIGA, *33 Harvd International Law Journal*, 103, 119,122 (1992). Paul E Comeaux & N. Stephen Kinsella, "Reducing Political Risk in Developing Countries: Bilateral Investment Treaties, Stabilization Clauses, and MIGA & OPIC Investment Insurance," *New York Law School Journal of International Comparative Law, Vol.15, No. 1, 1994 Pg. 5.*

[6] Political risk is the risk that the laws of a country will unexpectedly change to the investor's detriment after the investor has invested capital in the country, thereby reducing the value of individual's investment. Put simply, political risk is the government intervention. Paul E Comeaux & N. Stephen Kinsella, "Reducing Political Risk in Developing Countries: Bilateral Investment Treaties, Stabilization Clauses, and MIGA & OPIC Investment Insurance," *New York Law School Journal of International Comparative Law, Vol.15, No. 1, 1994 Pg. 5.*

Public and private governance need to be re-worked. In regulatory context it's the mixture of best option for governance. Simple model of control system gives rise to complexity of problem. Emerging economies need a robust regulation which works rationally in all the circumstances. Regulatory system has to be flexible, not just complex web of multiple regulators.

The boundaries of risk regulation and design of institution varies in different domain. To compare risk-regulation we cannot focus only on rules we have to explore range of risk assessment technology, the policy making approach, and the scientific practices as well as cultural influences.

Insurance has reduced market price below the costs of production; but the shortfall is derived by the insurance companies from the financial investments it makes in the capital markets from the accumulated premiums. It can be explained as business skill it's all about the using of knowledge to make profit.

Customers in the market economy generally give preferences to old and established insurance companies than to a newer and smaller one. Here the competitive advantage of the older company is not because of efficient management or low cost services; it's about safety over 'risk.' This is one of the reasons why the emerging economies choose to regulate the national market of insurance shielding them from the competition of the foreign insurers. There always a tension between demand for internationally effective regulation and economic advantage to state. Studies of regulation have recognized that regulation and risk are inextricably connected. Governance and regulation is the product of interactions and inter-dependencies.

'Re-insurance' is a mechanism used by the insurance industry to spread risks, it assumes from policy-holders. Emerging economies markets have small volume of premium and low retention capacity that they make extensive use of re-insurance. Emerging markets are making efforts to liberalize the reinsurance business, and harmonize the insurance regulation with the international insurance economy.

The strict direct regulation imposed on the reinsurers would prevent reinsurers from performing many of their core functions and threaten the economic benefits associated with reinsurance.

Risk and uncertainty have a profound impact on the cash flows and business values of an

organization. Inversely it confirms to the logic that risk imposes costs on the organizations that wouldn't have been, otherwise, incurred in a world of certainty.

1.2 OBJECTIVE OF THE STUDY:

The objective of this research is to gain new insight into the importance of 'risk', 'risk regulation' and 'reinsurance' in the contemporary world. The thesis focuses upon international political economy in context of 'risk', 'risk regulation' and 'reinsurance', attempting to study the theoretical characteristics of reinsurance with the help of industrial illustrations. These illustrations include the nuclear and aviation industry.

The choice of focusing on civil aviation reinsurance is in part dictated by the fact that this industry is increasing in leaps and bounds in emerging economies. The aviation insurance market is truly international as risks are placed in all countries through the exchange of reinsurance. Accumulation of risks is a very real problem for the insurer. The reinsurance market has become heavily involved in the insurance of aviation risks.

Whether the aviation insurance market is ready to handle events of catastrophic magnitude especially post 9/11 continues to be an issue to ponder upon. In relation to this, one can raise questions as to upto what extent should the state play a role between the insurers and the airlines especially from the perspective of emerging economies which among other things would like to see the growth of the aviation of industry. Much of air insurance is still regulated by convention that does not fulfil the requirements of the industry. Risk and cost involved in transportation of goods and passenger is persistently high. In this context it is very important to delineate the role of the state in aviation industry.

Turning to the nuclear industry, this industry has developed in an environment of mistrust and secrecy. In fact international politics has overtaken the nuclear technology and risk, where transfer of nuclear has become diplomatic warfare. Growing energy needs are pushing emerging economies to Nuclear Reinsurance Pools. Since nuclear risks are of very large proportions, it is vital that they operate under nuclear-pool system. Against this a series of questions emerge such as: Whether it is it essential to be a part of International Conventions with regard to Nuclear Energy? How are emerging economies coping with this? Can nuclear energy be a meaningful alternative to conventional energy in the emerging economies?

1.3 SCOPE AND LIMITATION OF THE STUDY:

As emphasized over the course of this thesis, the essence of risk is not that it is happening, but that it 'might be' happening. In understanding this, social theory, plays an important role in that it provide analyses not only of people's perceptions, legal definitions of such risks but also of the mutual constitutions of implicit assumptions, technological impositions and its uptake. How can social theories contribute in understanding the modern risks? How risk can be minimized and justly distributed with the help of insurance?

The term 'regulation' is very heavily contested. The distinction between functional and institutional regulation is one of the jurisprudential bases for the choice of regulation.

Reinsurance acts as a back up whenever an insurance company gets liquidated. What is the exact picture of reinsurance business? How regulatory authorities frame rules and regulations for various aspects of reinsurance business? How the interests of consumer are protected?

Why developing countries do chose to regulate the national market of insurance shielding them from the competition of the foreign insurers. How foreigner's insurance company's comparative advantage is more perceived than real? Does state stands as the guarantor for the national insurer?

This thesis will also ponder upon the limitations which are restricting the aviation industry and nuclear energy in emerging economies.

This thesis has tried to accommodate two industrial illustrations of aviation insurance and nuclear energy in one chapter 'Reinsurance Industrial Overview and Politics of International'.

In addition to this the thesis has tried to discuss 'Reinsurance in the Global South' but due to linguistic constraints primary legal sources was a constraint. This chapter has number of potential extensions for further research.

1.4 RESEARCH QUESTIONS:

After citing the problem the researcher articulates the problem in specific questions which are to be answered as the research proceeds.

- Why in the reinsurance contract 'public policy' is not given importance? How 'public policy' is being affected by lack of proper law?
- How limited liability in aviation insurance effecting the air carriers of emerging economies?
- How emerging BRIC economies and its ideology is adapting to the legal and regulatory philosophy?
- How rate of exchange can affect both the insurer and the reinsurer?
- Why reinsurance companies in emerging economies are governmental in nature?
- How limitations on foreign direct investment are hampering the reinsurance business?
- How compulsory tariffs based on assumptions rather than on an analysis of claims data affecting reinsurance business?
- Why the services of a broker are needed in selling policies in emerging economies?
- How rating agencies can impact the consumers?
- How terrorism is affecting reinsurance treaties? How indirectly it will affect consumers?
- Is there any grievance redressal machinery?
- Is the settlement of claims in tune with international standard?
- What are reinsurance needs of industry specific e.g. Nuclear and Aviation in emerging economies?

1.5 METHODOLOGY AND DATA COLLECTION:

1.5.1 METHODOLOGY:

This research is analytical and applied.

It is analytical in the sense that the researcher will use facts and information and analyze them to make a critical evaluation of the material.

The research is applied in the sense that it is directed towards policy issues faced by the reinsurance industry in the emerging economies with special focus on aviation industry and nuclear energy and also analyze the practices of reinsurance companies.

1.5.2 **DATA COLLECTION:**

The study is conducted with the help of primary and secondary sources.

Primary sources include the text of various agreements, decisions of panels, court decisions of emerging economies and draft proposal.

Secondary sources include authoritative books, articles and research reports. For analysis authenticated data retrieved from the net is also being used.

1.6 PLAN OF THE STUDY AND CHAPTERIZATION:

- The **First Chapter** deals with the Introduction to the concept of risk, risk regulation, reinsurance and their interface. This also deals with the scope of the study and limitations, the research design, the methodology adopted for the study.
- The **Second Chapter** deals in definitional and application aspect of the subject risk and uncertainty. How risk and uncertainty have emerged as the central themes in social science. What are the limitations of scientific approach when applied to sociological theories? Can numeric evidence find solutions to the risk and uncertainty in the society? What is role of underwriter of risk? How is the underwriter's human perspective, which comes after years of experience, come to be handy for the industry? Can a regulator foresee all kinds of risk?
- The **Third Chapter** deals with risk regulation. It examines the theories of regulation and its impact on the risk society. How there is a gradual shift of government to governance. It will also deal with some of these issues: Why is there is a split between regulatory function of government and policy making? Why due to budgeting constraint the states are forced to rule by proxy? What regulatory approach needs to be followed by institutions the structural or functional in emerging economies? Which is ideal for emerging economies blend of hybrid?
- The **Fourth Chapter** deals with the theories of reinsurance, the historical evolution of the concept, its origin in western countries and its development in emerging economies. The emphasizes is also on the concept and functions of reinsurance. There are certain intricacies in insurance and reinsurance how the English Court has clarified on the legal dimensions of reinsurance. Drafting of the contract is one major grey area when risk is assumed by underwriter in reinsurance. What is the difference between reinsurance theory and its application on industry? How English Courts have done the judicial interpretation of the contract of reinsurance and its content. It is being explained with the help of selected landmark cases.
- The **Fifth Chapter** deals with the **Reinsurance Legal Provisions in the Global South**. How they are dealing with various issues like solvency margin, investment and accounting procedure, protection of policy holder's interest for both life and non-life insurers. It will analyze the structural and financial restraints of the state catering

to the structure of markets when economy is in transition especially in the Global South. How reinsurance markets and reinsurance institutions develop to cater to the needs will be seen in this illustration? The interventionist approach of the state in market and its impact and varied model of state supervision is tried to be seen? What are the unique features of each legal domain of the Global South?

- The **Sixth Chapter** deals with reinsurance and it's explained through **Industrial Illustration**. Risk is involved in transportation of goods and passenger through airlines. Air insurance is still regulated by the convention which is not fulfilling the requirements of the industry. To underwrite risk in airline industry is not possible for a single insurer. How capital formation in aviation industry is big issue? How nuclear industry developed in an environment of mistrust and secrecy. However international politics has restricted the transfer of nuclear technology to emerging economies. Can international regulatory authorities break shackles of international politics of vested interest and assist emerging economies energy needs?
- The **Seventh Chapter** deals with the Conclusion and the Suggestion made by the researcher.

Chapter 2

The Contemporary Application of Risk

2.1 Introduction

2.2 Sociological Approaches to the Concept of Risk

2.3 Risk in Sociology

2.4 New Sociological Ambit of Risk

2.5 Foucault's Governmentality and Risk

2.6 Beck's Contribution in Risk Research

2.7 Luhmann's System Theory Contribution in Risk Research

2.8 Risk in Economics

2.9 Knight's Positivistic Risk Paradigm and its Contribution in Risk and Uncertainty Research

2.10 Risk in Philosophy

2.11 Risk Management and Risk Insurance

2.12 Underwriting

2.13 Principles of Probability and Rate-Making

2.14 Stabilization of Claims Ratio

2.15 Financial Stability

2.16 Risk Society and Financial Risk: The Imperfect Science of Regulation

2.17 Conclusion

Chapter 2

The Contemporary Application of Risk

2.1 Introduction: Risk and uncertainty have emerged as the central themes in social science in theory and practice. An understanding of the concept of risk is based heavily on the computation of mathematical possibilities. If we take the view that the philosophy of science takes, probability theory its terrain, that itself is fraught with contestations. Risk has other lives as well. Its social manifestation is in the form of numerical figures. This is the form in which it is consumed in society.

In the domain of the financial market, risk concerns itself with the spread of risk. Risk features in diverse forms of the literature ranging from rational choice approach to cultural approaches. Owing to these many lives of risk one can trace its implications across economic, social, and political domains.

In terms of concepts and the difference between them consider the following: As we shall see Beck's idea of the risk society is restricted to technology and environmental risk; Luhmann's notion of risk is based on decision making through communication and Knight's risk and uncertainty definition is used extensively in technical analysis of risk which helps in risk regulation.

With theoretical concepts of risk in the background, this chapter seeks to address the following questions: How do insurers use risk as economic device across the domains? Is risk predictable and governable with the help of technology? Why are there so many gaps between an expert and a layperson's concept of risk? Will only numeric evidence find the solution to risk in society? What is the role of underwriter? How does the underwriter of risk in insurance maintain balance by selecting a risk offers to the insurer and fulfils the company's objectives? Has economic diversification of risk helped? How are insurers struggling to manage risk? This chapter will also explain why some of these questions are difficult to answer.

Technological intervention in our lifestyle has increased the possibilities of major catastrophes in our lives. Unexpected disasters like Challenger Space Shuttle (1986), Nuclear Disaster of Chernobyl (1986), Exxon Valdez (1989) and Fukushima (2011), to name few, and many more remind us the limits of our capacity to control risk and uncertainty in our life.

New research in social sciences has improved our understanding about risk. We can better conceptualize how people perceive and prioritize risk and their capacity to manage risks which in turn facilitates an exploration of the ways in which people communicate about risk and respond to risk and uncertainty.

Risk is no longer restricted to industrial activities, harmful substances, or technical artifacts but it has developed, in the form of public relation, risk communication, and participatory approaches which are the new kind of risk management to handle the various interests in society.

The above approaches provide new means to mitigate risk; which is no longer restricted to one specific sector. This new progression of the risk with industrial activities and its association with individual and organizational behaviour leads us to 'a sociological analyses of risk'[7].

Risk is set of unknown and un-intended events dominating on the pages of history and how it has impacted the society. The unequal distribution of the 'social wealth' also offers impregnable defensive walls and justifications for the production of risks. Risk in the context of insurance is an object of distribution in society. Therefore determinants of risk are now-days presented with numeric evidences and technical certainty. 'Risk' as stated famously by Beck may be defined as: '*a systematic way of dealing with hazards and insecurities induced and introduced by modernization itself*'.[8]

The emotions of fear and dread are also associated with the interpretations of risk as danger of the unknown[9]. Some writers have suggested that 'risk' could well be dropped from 'political discourse' since the word 'danger'[10] would work as well. However on the other

[7] Beck, Ulrich, "*Risk Society: Towards a New Modernity*," Translated by Mark Ritter, Sage Publication, First Edition, 1992, Preface. Pg. 09. See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

[8] Beck, Ulrich, "*Risk Society: Towards a New Modernity*," Translated by Mark Ritter, Sage Publication, First Edition, 1992, Preface. Pg. 09.

[9] Lupton, D. and Tulloch, J. (2000),' Theorizing Fear of Crime: Beyond the Rational- Irrational Question,' *British Journal of Sociology 50 (3) ; 507-23.* Lupton, D and Tulloch, J. (2002),' Risk is Part of your Life: Risk Epistemologies among a Group of Australians,' *British Journal of Sociology 36 (2) : 317-34.* See also: Denney, David, "*Risk and Society*," Sage Publication, First Edition, 2005, Ch. 01. The Nature of Risk, Pg. 10. See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

[10] Douglas, M. (1992), "*Risk and Blame: Essays in Cultural Theory"*, London Routledge.

hand active risk-taking is core element in the creation of dynamic economy and innovative society[11].

2.2 Sociological Approaches to the Concept of Risk: There are three broad 'epistemological positions': **One**, the 'realists approach' which defines risk as an objective hazard, which exists independent of the social cultural forms of social action; **Two**, the 'weak constructionists' approach which, conceptualizes risk in terms of an 'objective reality' mediated through social and cultural process; and **Three** the 'strong constructionalist' approach or post-structuralist position in which risk is socially and politically contingent upon ways of seeing the world. This last position can be associated with the ideas of *Foucault.*[12]

To begin with it can be said that the sociological span of risk has become very wide from rational choice approach to cultural theory as cited above. It's very difficult to map sociology of risk.

Origin of sociological thought can be traced to the end of eighteenth century in Western Europe. Starting then, new questions arose around issues such as: 1. Social order, 2. Division of labour, 3. Social hierarchies, 4. Social cohesion, and 5. Individualization. The growth of this thought was enmeshed with development of empirical data and social statistics particularly, State collecting information on its population.

However it needs to be noted that in the classical sociology literature 'social problems' were the focal point and not 'risk'. 'Social problems' were explored through different angles. Risk emerged in the sociological thought and literature very late.

From 1980's 'dangers'[13] created by the new technology and its usages started dominating the public debate such as the impact of nuclear radiation, chemical waste, asbestos and lead poisoning. But this technical risk analysis anticipates risk as harm to human being and is unable to provide the exact reaction of society.

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[11] Giddens, A. (1998) '*The Third Way: The Renewal of Social Democracy*,' Cambridge Polity Press. See also: Denney, David, "*Risk and Society*," Sage Publication, First Edition, 2005, Ch. 01. The Nature of Risk, Pg. 10.

[12] Foucault, M. (1972) '*The Archaeology of Knowledge',* London: Routledge. Foucault, M. (1965),' *Madness and Civilization: The History of Insanity in the Age of Reason,'* New York: Pergamon. See also: Lupton, D. (1999 a) '*Risk', London: Routledge.* See also: Lupton, D., (Eds.) (1999 b),' *Risk and Socio-Cultural Theory: New Directions and Positions*,' Cambridge; Cambridge University Press. Pg. 30. See also: Denney, David, "*Risk and Society*," Sage Publication, First Edition, 2005, Ch. 01. 'The Nature of Risk,' Pg. 10.

[13] Vandereen, G. (2002) 'Regarding Riskism: On the Primary Importance of Public Opinion on Safety and Security,' Paper given to Law and Society Conference, July 2002, Vancouver, Canada. **See also:** Denney, David, "*Risk and Society*," Sage Publication, First Edition, 2005, Ch. 01. 'The Nature of Risk', Pg. 10.

The founding fathers of sociology were also in their own ways concerned with questions related to 'risk' when they were in formative stage of developing a social theory. **Marx** drew attention to 'capitalist mode of production' which created so much instabilities and misery. **Durkheim** was concerned more with the 'danger of society' dis-integration, as over-emphasis on economic development, which led to the breakdown of moral regulation. **Weber** analyzed, that risk was associated with the growth of 'bureaucratic organizations' and it emerged due to 'industrialization'.

The anticipation and prevention of danger has now given rise to an industry of risk assessors and risk analyst[14]. Risk is said to exist when society elects to take new course of action while knowing there are risks involved in it. Risks are not as realities lying outside, but are assemblages of meanings logics and beliefs around material phenomena, giving phenomena, a form and substance[15].

It is often suggested that the common feature in the modern world is its 'rationality,'[16] to invoke the phrase which is being used extensively by '**Weber**,' where the term can be understood as well thought of set of rules that ordinary people orient themselves to and live by. One can also associate 'rationality' with a 'calculating attitude' of past events happened in history.

In contemporary times, people normally tend to ignore the past to focus their time, energy and cost on the future to make their life better. The essence of the modern world is to calculate the odds, so that the future can be better. What are these odds? One way to think of an answer to this question is to say that these odds are the series of events that have happened in the past. Risk and uncertainty thrive on mathematical tables, which are based on past numeric evidences in the form of data but it is precisely here that 'rationality' works differently at different times and places due to influence of culture. But one thing is common

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[14] Eldridge, J. (1999),' *Risk Society and the Media: Now You See It, Now You Don't* ,'Harlow: Longman. Ewald. F. (1991)' Insurance and Risks,' in G. Burchell, C. Gordon and P. Miller (Eds), The Foucault Effect: Studies in Govern-mentality. Chicago: University of Chicago Press. See also: Denney, David, "*Risk and Society*," Sage Publication, First Edition, 2005, Ch. 01. The Nature of Risk, Pg. 10.

[15] Lupton, D. (1999 a) '*Risk', London: Routledge.* See also: Lupton, D., (Eds.) (1999 b),' *Risk and Socio-Cultural Theory: New Directions and Positions*,' Cambridge ; Cambridge University Press. Pg. 30. See also: Denney, David, "*Risk and Society*," Sage Publication, First Edition, 2005, Ch. 01. The Nature of Risk, Pg. 10. See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

[16] Anthony Elliot (Eds.): '*Social Theory,' Routledge: USA, First Published-2010, Pg. 18-34 Chap. 01, What is Social Theory? By Charles Lemert*.

to the modern world is to strive for a better future.

Modern science and technology has made life better but it is just 'relative privileged'. The contradictions in modern societies that so have troubled '**Marx**' continue to persist with the growth of wealth accompanying the growth of poverty. '**Weber**' born to an affluent class was also troubled by grave damages that modern world have done to mankind, suggesting that the construction of the problem with the modern world is that it promises a lot but a lot less is delivered. '**Durkheim**' was also troubled by the problem of modern world and while he said, religion couldn't guide members of society as in the past, however, he thought cultural education could fill this gap and act as a guide for a better future.

2.3 Risk in Sociology: The relationship of individual and society is central to sociology. Societal structures and cultural affinity not only serve as barriers to positive social action, but they also make it happen[17]. When we go through the literature of classical sociology as discussed above it focuses on 'social problems' of the society and doesn't not focus on 'risk' to society. Risk is used as lens to glance at the problems of society and analyze them. It needs to be realized that there is wide gap between context and social factor. The role of sociology is to provide knowledge about factors, which help us understand how the public perception about risks is developed.

2.4 New Sociological ambit of Risk: It was only after the publication in the 1990's literature of *Risk and Culture*[18] and *Risk Society*[19] that new arguments and sociological concepts started to develop. Over time a much broader concept of 'uncertainty' came to be discussed that moved away a bit from the initial perspective of 'risk society' which was totally based upon environmental hazards. This literature broadened the debate on risk, beyond the parameters of technical considerations of engineers and the natural scientist. It tried to explain the reasons behind the divergence of views between public and expert about the risk[20].

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[17] Rosa, N. E.A. (1998)' *Meta-Theoretical Foundations for Post Normal Risk', Journal of Risk Research 1: 15: 44*. Lupton, D., (1999 a) '*Risk', London, Routledge.* See also: Lupton, D., (Eds.) (1999 b),' *Risk and Socio-Cultural Theory: New Directions and Positions*,' Cambridge; Cambridge University Press. Pg. 30. See also: Denney, David, "*Risk and Society*," Sage Publication, First Edition, 2005, Ch. 01. The Nature of Risk, Pg. 10.

[18] Douglas, M./Wildavsky, A. 1982: '*Risk Culture. An Essay on the Selection of Technological and Environmental Dangers,' Berkeley: University of California Press*.

[19] Beck, Ulrich, "*Risk Society: Towards a New Modernity*," Translated by Mark Ritter, Sage Publication, First Edition, 1992, Chap.1 On the Logic of Wealth Distribution and Risk Distribution.

[20] Krohn, Wolfgang/ Krucken, Georg 1993: Risiko als Konstruktion udn Wirklichkeit. Eine Einfuhurung in die sozoalwissenschaftliche Riskoforschung. In: Krohn, wolfgang/Krucken, Georg(Eds.) : Riskante Technologein: Reflexion und Regulation: Einfuhurung in die sozoalwissenschaftliche Riskoforschung, Frankfurta. M.:

If we look at Beck's 'Reflexive Modernization'[21] approach it's just based on assumption derived from some mathematical tables and calculations not based on risks and uncertainty from sociological perspective.

However the *Socio-cultural approach*[22] brought to light upon the influential approach of 'culture and risk', wherein the effect of emotions in terms of risk was raised.

Foucault[23] questions how institutions and organizations organize power and govern populations in context to risk. On the other hand 'Slovic' viewed that: "*risk is a social construction in a particular historical and cultural context*"[24].

In Beck's *Risk Society*[25] it's restricted to the technical and environmental risks caused due to industrialization. But it failed to understand societal development on concept of risks especially the historical strategy to manage uncertainties; which is the idea of insurance and

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Suhrkamp. See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR)," Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

[21] The Concept of **reflexive modernization or reflexive modernity** was introduced in sociological ambit by three leading sociologist-**Anthony Giddens, Ulrich Beck and Scott Lash**. This concept tries to re-assess sociology as a science of present time and counter-balance the post-modernist paradigm along with re-constructive and de-construction. Reflexive modernization in simplest notion is a process which states that we are moving into a third and final stage of 'social development' within modernity. Risk Society suggests that first stage was pre-modernity followed by simple modernity and last stage is reflexive modernization or reflexive modernity. Traditional society was followed by simple modernity. This stage saw the emergence of classes, wealth accumulation, rapid scientific advances and the arrival of industrial and capitalist society. Science and technology is used for the purpose of reflexive modernization. The concept is less concerned with the expansion of resource base: it only re-evaluates resource already utilized by the society. Reflexive modernization or reflexive modernity has also gained the momentum in the form of '**sustainability' and 'precautionary principle'**.

[22] Lupton, D. and Tulloch, J. (2000),' Theorizing Fear of Crime: Beyond the Rational- Irrational Question,' *British Journal of Sociology 50 (3) ; 507-23.* Lupton, D and Tulloch, J. (2002),' Risk is Part of your Life: Risk Epistemologies among a Group of Australians,' *British Journal of Sociology 36 (2) : 317-34.* See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR),", Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25. See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

[23] Foucault, Michel 1991: *"Govern-mentality", In Burchell, G. et al (Eds) , The Foucault Effect*, Pg87-104.See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR),", Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

[24] Slovic, Paul. 1999*: ', Trust, Emotions, Sex, Politics and Science: Surveying the Risk-Assessment Battlefield. In: Risk Analysis, Vol.19, and Issue. 4,pg. 689-701.* See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR),", Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25. See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

[25] Beck, Ulrich, "*Risk Society: Towards a New Modernity*," Translated by Mark Ritter, Sage Publication, First Edition, 1992, Chap.1 On the Logic of Wealth Distribution and Risk Distribution.

the statistical methods to calculate uncertainties[26]. Beck defined the relations between dynamic institution and social reflexes on the one hand and self-referentiality and critical reflections on the other[27].

Bonβ argues that: '*Societal approach to risk has to start with the concept of uncertainty instead of risk*[28]'. This again is the idea behind insurance. The need is for concept of uncertainty instead of risk. The repeated catastrophes show the limits of mathematical probabilistic risk calculations to find answers to modernity. This ultimately leads to a politicization of risk discourse.

The calculability is a cultural construction only valid for some special cases and not for all incidences which happen on this earth. This risk calculation cannot find answers to all subjective risk so it cannot fundamentally reject also. A change is needed away from interpretation based upon foundation of probability and calculation based derived from mathematics.

Risk is a factor in human decision making because we cannot gain sufficient knowledge about possible future. Furthermore, risk is constituted by the distinction between present reality and future possibilities. It presupposes that the future is not determined and that human actions shape the future. Anthony Giddens puts it: "*.... Modernity is a risk culture. The concept becomes fundamental to the way both lay actors and technical specialists organizes the social world. Under conditions of modernity, the future is continually drawn into the present by means of the reflexive of knowledge environments.*"[29]

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[26] Japp, Klaus Peter 2000: Risiko , Bielefed: Transcript. See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR),", Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

[27] Elliott, Anthony 2002: '*Becks Sociology of Risk: A Critical Assessment. In : Sociology',* 36 ,2, pg 293-315. See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR),", Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

[28] Bonβ, Wolfgang 1995: Vom Risiko Unsicherheit udn Ungewiβheit in der Moderne Hamburg: Haamburg Edition. See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR)," Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

[29] Giddens A., (1991) '*Modernity and Self-Identity', Polity Cambridge*. See also Giddens A. ,(1994) *'Risk, Trust, and Reflexivity';* In Beck U. ;Giddens A. and Lash S. (Eds.) *'Reflexive Modernization', Politics, Traditional and Aesthetics in the Modern Social Order. Polity, Cambridge, pg-184-197. See also:* Douglas, M. (1992), *Risk and Blame: Essays in Cultural Theory*, London Routledge. See Douglas, M. / Wildavsky, A. 1982: '*Risk and Culture." An Essay on the Selection of the Technological and Environmental Dangers'. Berkeley: University of California Press.* See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR),", Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

As discussed above culture and risk approach[30] is based on grid system. In this approach different logics of risk are being analyzed as to how they are expressed in social group's organizations with the help of information based upon numeric evidences, how an individual reacts to a particular incident and how a group of people as a social unit reacts to an incident. The approach uses both quantitative approach and qualitative approaches. This approach enables us to perceive how peoples risk perception is culturally biased in different time and space and different culture.

A risk is multi-dimensional since risk can be valued positively as well as negatively in different domains. In relation to this identity formation has a big influence on the ways people perceive and take risks in life [31] where social-structural indicators of social class, gender, and ethnicity as a source of resources and power (as well as a lack of the same) are suspected to influence the risk perception and behaviour.

There is a sharp line of dissent between the way experts perceive risk and public understanding of risk. The sociology of risk explains how risk and uncertain events interact with the various subjects, institutions, and cultural processes, and builds a risk perception and also shapes the risk behaviour in relation to risk.[32]

This social amplification of a risk and uncertain event and its association may sometimes result in changed policy regulation, which indirectly brings new conditions for insurance, consumer boycotts of a product, decreased institutional confidence, and social stigmas. These

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[30] Douglas, M. (1992), *Risk and Blame: Essays in Cultural Theory*, London Routledge. See Douglas, M. / Wildavsky, A. 1982: '*Risk and Culture." An Essay on the Selection of the Technological and Environmental Dangers'. Berkeley: University of California Press.* See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR),", Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25. Giddens A., (1991) '*Modernity and Self-Identity', Polity Cambridge*. See also Giddens A. ,(1994) *'Risk, Trust, and Reflexivity';* In Beck U. ;Giddens A. and Lash S. (Eds.) *'Reflexive Modernization', Politics, Traditional and Aesthetics in the Modern Social Order. Polity, Cambridge, Pg-184-197.*

[31] Tulloch, John 2000: '*Landscapes of fear,' Public Places, fear of Crime and the Media.' In Allan, Stuart/ Adam, Barbara/ Carter, Cynthia 2000: Environmental Risks and the Media. Routledge: London; New York, pg. 184-197.Tulloch, John/ Lupton, Deborah, 2003: Risk and Everyday Life. London: Sage Publications.* See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR)," Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

[32] Bernot, J./ Bonnefous, S./ Marris, C. 1998: '*Testing the Cultural Theory of Risk in France. In: Risk Analysis'. Vol.18, Issue: 6, pg. 729-739. See also:* Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093. See also:* Tulloch, John 2000: '*Landscapes of fear,' Public Places, fear of Crime and the Media.' In Allan, Stuart/ Adam, Barbara/ Carter, Cynthia 2000: Environmental Risks and the Media. Routledge: London; New York, pg. 184-197.Tulloch, John/ Lupton, Deborah, 2003: Risk and Everyday Life. London: Sage Publications.* See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR)," Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

points to social or economic consequences that go far beyond the direct consequences of the risk event- in fact a chain of reaction builds up.

Here, the role of science can be seen as being constructive for risk -science has also witnessed development of technical risk analysis which influences different subjects. A literature of 'social-scientific' is developing. Scientific values are not solely involved in the initial process of defining risks, but they form a part of what has to be analyzed evaluated and regulated by technical risk analysis. This is the intrinsic part of 'risk regulation process' and is the also the process of developing and validating knowledge backed by scientific analysis.

If scientific analysis can be thought of as being based upon some mathematical probabilistic risk calculations backed by numeric evidences, then what is the role of sociology here is to investigate and explain why the perception of actors was differential. In other words we need to understand that **there is a gap between the understandings of risk between those who put forward technical risk analysis and the social construction of risk.**[33]

2.5 Foucault's Governmentality and Risk: After going through literature of sociology a proposition can be developed between Foucault's Governmentality regarding risk. It is very hard to have a homogenous approach to the issue of Governmentality and Risk. Some studies show that the organizations govern the risk-problems[34]. There are general discourses which are influenced by definitional problems risk[35].

Given different discursive spaces, varying strategies are used by different groups.[36] However, based on this no single paradigm can be built, but we can interpret Governmentality to make an inference that says that one can be build, upon a risk society approach that focuses on statistical calculation of risk strategies with the help of mathematical computation.

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[33] Bernot, J./ Bonnefous, S./ Marris, C. 1998: '*Testing the Cultural Theory of Risk in France. In: Risk Analysis'. Vol.18, Issue: 6, pg. 729-739. See also:* Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093. See also:* Tulloch, John 2000: '*Landscapes of fear,' Public Places, fear of Crime and the Media.' In Allan, Stuart/ Adam, Barbara/ Carter, Cynthia 2000: Environmental Risks and the Media. Routledge: London; New York, pg. 184-197.Tulloch, John/ Lupton, Deborah, 2003: Risk and Everyday Life. London: Sage Publications.* See also: Jens O. Benn., "*Literature Review: Sociology and Risk; Social Contexts and Responses to Risk Network (SCARR)," Working Paper: ESRC Priority Network*, 2004/1, Pg. 1-25.

[34] Joyce, Paul 2001: '*Governmentality and Risk: Setting Priorities in the NHS. In Sociology of Health and Illness.' 23, 5, pg. 594-614.*

[35] Kelly, Peter 2001: *'Youth at Risk: Processes of Individualization and Responsibilitisation in the Risk Society. In Discourse : Studies in the Culture Politics of Education'. 22,1, pg. 23-33.*

[36] Hier, Sean P. 2002: *'Raves, Risks and the Ecstasy Panic: A Case Study in the Subversive Nature of Moral Regulation'. In: Canadian Journal of Sociology 27, 1, 33-57.*

This inference of risk society elucidates the institutional, governmental and discursive mechanisms of risk management. The significance of uncertainty as a " *characteristic modality of liberal governance that relies both on creative constitution of the future with respect to positive and enterprising dispositions of risk taking and on corresponding stance of reasonable foresight or everyday prudence (distinct from both statistical and expert based calculation) with respect to potential harms*".[37]

However this approach doesn't entirely construct a social theory of risk and uncertainty. If we take a close look at this approach to risk we find it to privilege communitarian values over individual agency and choice.[38] However the strong point in this approach is the construction of subjectivity through institutions and organizations.[39] In fact this approach will lead us to 'social policy' made by the government in 'neo-liberal economies'.

'Governmentality' may be regarded as an analytical technique that came to the fore over a period when 'Marxist theory' lost some favour. Governmentality focuses on the diverse ways in which we may govern the conduct of others and ourselves.

Foucault stressed governments must always address the question of the right balance between governing too much or too little governing but not disrupting the self-governing capacities. Foucault and his colleagues as **Defer, Ewald, Castel,** and **Donzelot** believed that risk was to be one of the central technologies of government. Ewald, Defert and Castels explored risk with a new analytical framework. Ewald and Defert were dealing with insurance, Castels dealt with psychiatry.

Risk, in this kind of work is also understood as a technology of the government, where risk is a statistical and probabilistic technique using the idea that a large number of events are stochastically distributed and can be predicted. Insurance in this imagination focuses on risk factors and risk pools are created with research concerned with Governmentality covering

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[37] O' Malley, Pat 2000: *'Uncertain Subjects: Risks, Liberalism and Contract In: Economy and Society'. 29 (4). Pg. 87-108.*

[38] Kelly, Peter 2001: *'Youth at Risk: Processes of Individualization and Responsibilitisation in the Risk Society. In Discourse : Studies in the Culture Politics of Education'. 22,1, pg. 23-33.*

[39] Lupton, D. (1999 a) '*Risk', London: Routledge.* See also: Lupton, D., (Eds.) (1999 b),' *Risk and Socio-Cultural Theory: New Directions and Positions*,' Cambridge ; Cambridge University Press. Pg. 30. See also: Denney, David, "*Risk and Society*," Sage Publication, First Edition, 2005, Ch. 01. The Nature of Risk, Pg. 10. See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

uncertain future events.

Ewald stresses that risk is very abstract probabilistic technology so no correct pure application but rather the government provides channels for application. Since probability is a complex assemblage of elements, it can be said that 'insurance' is an application of risk that is coupled with practices that convert 'events' into 'capital'.

This monetization of events is a specific medium for spread of risks and the term insurance technology has been coined in this context. The concept of 'social insurance' evolved from this as a passive form of solidarity that became attractive to workers and governments and the 'principle of workmen compensation' evolved. The use of professional judgement in the case method for governing the risk; was like actuarial entities, statistically knowable, and calculable risk. The welfare liberal economy links technologies with risk based schemes for social insurance.

It may be noted that 'social insurance' is contributory. Members pay 'premiums' and are entitled to benefits. This 'social insurance' in the classical liberal view is based on thrift and diligence, not operated contractually, but it's not based on charity. Innovating on this conventional liberalism has seen to it that 'private insurance' is being pushed to replace 'social insurance'.

Thus, risk management over time has changed from the 'social collective model' to 'individual level'. The implications of this for risk and uncertainty is that since uncertainty is non-probabilistic and Foucault's notions of Governmentality are based on the expectation how the future is likely to turn out, apparent risk becomes predictable and governable with the help of technology. Thus under neo-liberal entrepreneurialism the market is governable with the help of technology by accumulating information market.

The task of the sociology is to study how, through technical risk analyses with the assistance of numeric evidences, administrative institutions, incalculable dangers are placed in public domain to build public opinion around it and how to govern it.[40]

We can take a cue from Foucault's work on Governmentality and look at the sociology of risk

[40] Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.See also:* Joyce, Paul 2001: '*Governmentality and Risk: Setting Priorities in the NHS. In Sociology of Health and Illness.' 23, 5, pg. 594-614.*

and uncertainty as we study questions and problems relating to risk are defined, asking by whom are they defined and in relation to what goals they are being defined. What practices, technologies and rationalities are being used? What numeric evidence is being used? How governance is accomplished and exercised? In many of these concerns the knowledge of the expert is decisive but it also needs to be realized that civil society has emerged as a forum in which individuals can express themselves without fear as a citizen and counter the technical risk analyses.

2.6 Beck's Contribution in Risk Research: After 1990, Beck's literature introduced *Risk Society*[41] a new argument and sociological concept in the sociological ambit of risk. In this book, Beck focused on social transformation in industrial society. Beck stated that production of wealth in a risk society also brought the risk of social hazards. Beck highlighted immanent contradictions between modernity and post-modernity within the industrial society, a position in this setting is no longer pure reflection of class position. Beck's 'theory of modernization[42]' in risk society states that 'coordinate system' has fixed understanding about separation of nature and society, science and technology and the cultural reality of the social class. Beck's risk society states 'reflexive modernization[43]' has dissolved the traditional parameters of the industrial society. There is growth of individualization in this form of capitalism. Due to this growth of individualization social inequality is developing. Beck lays emphasis on 'reflexive modernization,' its importance from all aspects of society and its role in future development of society. Modern society/Risk Society normally ignores the past to focus their time and energy and cost on the future to make their life better. The essence of the modern world is than to calculate the odds that the future can be better.

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[41] Beck, Ulrich, "*Risk Society: Towards a New Modernity*," Translated by Mark Ritter, Sage Publication, First Edition, 1992, Chap.1 On the Logic of Wealth Distribution and Risk Distribution.

[42] Modernity is a term which is related to modern societies. In literature of sociology there is sharp divide between pre-modern and modern societies. The debate is around when Western Societies became modern. Modernity is also distinguished on the basis of economic, political, social and cultural grounds.

[43] The Concept of **reflexive modernization or reflexive modernity** was introduced in sociological ambit by three leading sociologist-**Anthony Giddens, Ulrich Beck and Scott Lash**. This concept tries to re-assess sociology as a science of present time and counter-balance the post-modernist paradigm along with re-constructive and de-construction. Reflexive modernization in simplest notion is a process which states that we are moving into a third and final stage of 'social development' within modernity. Risk Society suggests that first stage was pre-modernity followed by simple modernity and last stage is reflexive modernization or reflexive modernity. Traditional society was followed by simple modernity. This stage saw the emergence of classes, wealth accumulation, rapid scientific advances and the arrival of industrial and capitalist society. Science and technology is used for the purpose of reflexive modernization. The concept is less concerned with the expansion of resource base: it only re-evaluates resource already utilized by the society. Reflexive modernization or reflexive modernity has also gained the momentum in the form of '**sustainability' and 'precautionary principle'**.

Beck positions his social theory between Marxist class analysis, Luhmann's functionalism and post-modern approaches. He criticizes the tradition structural analysis in the tradition of Marx. While he derives class-consciousness from the socio-structural contradiction between labour and capital, he distances himself from functionalist theory of Luhmann. Beck went on to develop a more general societal theory, whereas Giddens focused on the political implications of his theoretical considerations. Giddens believes that with modernity the social production of wealth is systematically producing risks. For him the risk society is not restricted to technological risks but also techno-scientific risks. Beck interprets the production of risk as being part and parcel of modernizations itself and application of scientific principles implies normativity, uncertainties, and limits of knowledge production.

Risk which is calculable and the outcome manageable by financial compensation, which allows practical control of uncertainties. Since modern risk is more man-made it cannot at all times be managed by scientific control by knowledge or statistical probabilistic calculation of costs by insurance. Beck also says that nature and culture cannot be separated, i.e. nature is never just nature but always culture as well, and culture never just culture but nature also. They are inter-related and overlapped. This has the implication that human emotions effect risk when it gets connected with identity.

Beck goes on to say that knowledge production is fragmented into disciplines and specific domains within disciplines, while risk is complex. If by using experimental methods it be shown that certain substance is harmless for human, this substitutes for knowledge.

Similarly the 'polluter pays principle' indirectly supports non-responsibility of the perpetrators. This is the legitimization of the production of risk and organized irresponsibility. In this process science does not lose its significance in producing legitimate knowledge and truth but its previously indisputable authority is questioned- a systemic change takes place within science due to the modernization.

Instead of focusing on the outcomes, Beck concentrates on causes and in the process prevention gains importance causing an emphasis on learning from irreversible outcomes. Individualization is a new contradictory mode of societalization- it depends on the contingent development of economic prosperity and the construction of welfare state. It also can be said in this context that individualization means dependency on the market and the welfare state. This generates what can be called **a new political economy of uncertainty and risk** and be termed as **'precarious freedom'.** The individualization is explained as people being set free from the

social forms of industrial society class stratifications, family, and gender constraints, where there is growing a response to the failure of state politics. Put differently, it is a response to a lack of direct influence in indirect representative democracy where the power of citizens is limited to electing Parliament without having effective means of influencing the political process directly. **The distinction between political and non-political is sharp but is the basis of the regulatory capacity of the state.** Beck also talks about the tension between the old and new boundaries and cultural identities and termed it as 'melange principle[44]'.

The dynamics of risk society get lost when we neglect specific commitments and structural power of socio-cultural lifestyles and needs and wishes. A better understanding is needed for socio-cultural processes which shape the social life. Society is not just determined by institutions of markets and welfare. It's the transformation towards risk society. It can be rightly said that a fully developed risk society or reflexive modernity is not possible there will always be a link between feudal traditional other forms or constructions of 'risk' and 'uncertainties'. It needs to be realized that some societies will be driven by culture of fear also. In fact it can be said that there are certainly huge differences in people's experience of individualization within nation-states which depends on whether social security is provided by a strong or weak state. People are largely liberated into the incalculable insecurities of the market where they have to bear all the uncertainties themselves-it is only when a welfare state delivers a substantial amount of safety that a huge difference in individual life is manifest.

2.7 Luhmann's System Theory[45] Contribution in Risk Research: Drawing on Talcott Parsons's social theory, Luhmann developed a general theory of modern society. He says there is a fundamental distinction between system and environment and communication and its social operation.

A higher complexity in the environment entails a greater importance for the system to reduce this complexity. This reduction of complexity is accomplished each with distinct forms of communication which means that different sub-systems develop, each with distinct forms of communications. A sub-system is cognitively open; it is receptive to signals from its

[44] It is anarchy of philosophical thoughts. Knowledge is determined by natural science. Revisionist scholarship always has a academic value. It promotes accuracy in interpretation of text. What is existential value and profit in Kant's philosophical writing? Kant elevated the idea of freedom to the level of critical consciousness reconciling with empirical knowledge.

[45] Luhmann, Niklas, "*Risk: A Sociological Theory*," Translated by Rhodes Barrett, Aldine Transaction, A Division of Transaction Publishers, New Brunswick U.S.A) and London (U.K.), Fourth Edition, 2008, Chap.1, Introduction. Pg. 02.

environment. Signals are always transformed into communication through a particular binary code of the sub-system. [46] These codes are abstracts and universally applicable distinctions. In other words what is being said is that external facts can only be taken into account as part of systems environment and understood through communication.

There is no position available outside the system; these facts can only be understood from within. Luhmann termed it as "second order observation"[47] *First order observations* identify facts and objects as given and no reflection is made on the distinctions used in the observation. *Second order observation* of the distinction implicitly used in the first observation which or what distinction is applied in the observation of a fact or object. The second order observation reveals that there are no objective facts outside the operation of each sub-system- What may seem like an objective fact in the first order observation (which takes for granted its own distinction), an event or an activity can never in itself create a response-it needs to be subject of communication.

Luhmann believed risk is attributed to decision-making that results in negative consequences. **He defines risk as an attribution events or possible future loss.** Thus risk is an intrinsic part of a functionally differentiated society and the development of such a society. **Uncertainty is intrinsic to both risk and danger; the difference lies in who is seen to be the decision maker.**

Luhmann's system theory provides an alternative and understanding, not only of risk but also of society at large. The manner in which systems theory deals with risk is based on what it perceives to be the assumptions, structures and processes of modern society. While Parsons idea of sub-systems is primarily an analytical concept, Luhmann's idea of sub-systems is actually observable. Each societal sub-system specializes in only one basic societal function and operates with communications the form of which corresponds to this function[48]. Here we have to understand the difference between stratified society and functionally differentiated society and how concept of risk and sub-system theory regards it.

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[46] Luhmann, Niklas, "*Risk: A Sociological Theory*," Translated by Rhodes Barrett, Aldine Transaction, A Division of Transaction Publishers, New Brunswick U.S.A) and London (U.K.), Fourth Edition, 2008, Chap.1, Introduction. Pg. 18.

[47] Luhmann, Niklas, "*Risk: A Sociological Theory*," Translated by Rhodes Barrett, Aldine Transaction, A Division of Transaction Publishers, New Brunswick U.S.A) and London (U.K.), Fourth Edition, 2008, Chap.1, Introduction. Pg. 05; and 223.

[48] Jens O. Zinn (Eds.), "Social Theories of Risk and Uncertainty: An Introduction*", Blackwell Publishing, First Edition, 2008, Chapter .02 and 03 and 04, Risk Society and Reflexive Modernization; Governmentality and Risk; Systems Theory and Risk; By: Jens O. Zinn; Pat O' Malley and Klaus P. Japp and Isabel Kusche , Pg. 18-49; 52-75;76-102.*

If we are given to understand systems theory society has no top or bottom each societal system refers to its own logic, its own past and its own mode of operation. System theory assumes that concept of risk is not dangerous process of modernization due to technology and development which is embedded in the structure of modern society adding psychological mechanisms also.

With regard to' risk regulation' the approach particularly focuses on the ways in which various function systems deal with risks according to communicative logic of the respective systems on the one hand and try to get rid of risk problems by shifting them to other function systems on other hand.

Therefore system theory adds to the analysis of organizations concerned with risk regulation the sensitivity for constraints imposed by functional realms of society. Modern risk taking behaviour is based upon calculations of probabilities which is based on similar risk in the past. Luhmann points to modern society and how it deals with it.

Binary codes and self reference functional specialized communication are keys to understand these contingencies. As all societal communication is about legality or non-legality; power or no power so on so forth, it can be said that all decisions are inter-wined into three- material dimension, social dimension and the time dimension. In the time dimension, semantics of time emerge which replace the unity of past and future as it is the difference between past and future that is important. In other words this is a reference to the transformation of the social structure toward functional differentiation. Decisions are possible if the future is not identical to past-this difference between past and future replaces former unitary eschatological cosmological concept of time. Functional differentiation means self-referential communication leading to multiplication and inherent flexibility of time horizons in various social systems. Here economic innovation leads to new problems. Decisions make the difference of time visible. This structural drift of societal communication toward a focus on decisions and their consequences is the fundamental basis for the concept of risk in the context of theories of modern society.

Progress is invisible due to continuous re-evaluations of the changing time horizons. However this progress produces risks on the basis of which attributable decisions are made, where risk implies post-decisional regret. According to system theory this is due to irreducible contingency or selective decision making. Now, law is supposed to be a central mechanism for regulating risk. However Luhmann was skeptical about **law being able to**

deal with risk problems. This is so as risk refers to future while **law is concerned with past events** on the basis of legal communication, infringement of law and violation of law. According to the system theory it is a contradiction of basic function of law if it is not feasible to predict legal consequences.

Another important observation of Luhmann was the distinction between risk and safety. Every decision making choice is risky, it is always uncertain whether selecting particular opportunities can prove advantageous. The distinction between risk and danger does not refer to differences in certainty but to difference in attribution. So according to system theory distinction between risk and danger is a second order distinction.

Regulatory organizations come to regard their role in 'risk regulation's' as a risk for their organizational survival and react by shifting problems elsewhere creating new risk for other organizations. The social dimensions of this conflict are reflected in the distinction between decision maker and those affected. Often there is irrational resistance against probabilistic risk assessments of expert decisions makers and it is essential to understand this. Any attempt to rationalize risk regulation by promoting methods such as cost benefit analysis and to calm down public worries by pointing to the results of such calculations points to the fact that there is often a lack of common ground from the functionality perspective in different realms of economics, political science and sociology.

In reality a pragmatic approach is required for understanding risk with consideration of multiple perspectives of decision making. Though conflicts lead to social exchange but it's necessary to look for common ground political acceptability and economic profitability. Luhmann elucidates on this with relation to administrative decision making, which he links with participative procedures and public hearing, acts that ignores differences between legal communication, scientific communication and political demands. Risk management often means diverse measures of establishing emergency plans. Risk as inherent in decision-making is a question of attribution in communication. By conceptualizing it as a matter of attribution and observation, system theory points to barriers of enlightment and mutual understanding that are embedded in the societal communication.

2.8 Risk in Economics: Risk has played a central role in the development of economic theories. In this approach a general risk analysis, the principles of 'classical utilitarianism' is followed. In 'classical utilitarianism' all the risk is summed up in one, irrespectively it's occurring to whom. In this kind of risk benefit, the sum of benefits is compared to the sum of

risks and whether the outcome is positive or negative is compared. This then is broadly the approached associated with 'classical utilitarianism.'

A rational person will avoid risk as far as possible in his life, but in economics risk-taking is often considered to be desirable. In capitalists economy risk taking is believed to be essential for the efficiency of a capitalist system, and it's justified, as owner's prerogative to exert ultimate control over the companies and reap benefits. It can be thought of in terms of being the major force behind the stat-ups. As Adam Smith in his Wealth of Nations said, "*....something must be given for the profits of the undertaker of the work who hazards his stock in this adventure*.[49]"

But today private investments in companies assisted by institutions and funds that diversify their securities in a sophisticated way with mathematical possibilities reduce risk taking approach. Portfolio theory and modern financial market places have combined to make risk spreading much more efficiently than what was previously possible[50].

2.9 Knight's Positivistic Risk Paradigm and its contribution in Risk and Uncertainty research: In the beginning of the 20th Century, two influential *economists* delved in to highlight the problems of risk. Frank H. Knight published *Risk, Uncertainty and Profit (1921)* in the same year as John Maynard Keynes published *A Treatise on Probability (1921)*[51]. Both the scholars addressed the problems of making choices in uncertain circumstances and both defined the concept of '*risk*' and '*uncertainty*', albeit in opposite ways.

Knight argued that it is possible and necessary to sharply distinguish *risk* from *uncertainty*: risk can be explained as "*you don't know for sure what will happen, but you know the odds*," while uncertainty means that "*you don't know the odds*."

[49] Smith, A. (1776) 'An inquiry into the nature and causes of the wealth'. *In Campbell RH Skinner As, Todd WB (Eds.) The Glasgow Edition of the works and correspondence of Adam Smith, Vol.2 Clarendon, Oxford*. See also: See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

[50] Smith A. (1776) 'An inquiry into the nature and causes of the wealth'. *In Campbell RH Skinner As, Todd WB (Eds.) The Glasgow Edition of the works and correspondence of Adam Smith, Vol.2 Clarendon, Oxford*. *Mill. J.S. (1848)* "The Principle of the Political Economy, with some of their applications, to the Social Philosophy. In *Robson J.M. (Eds.) (1965) Collected works of J.S. Mill, Vol. 2-3 University of Toronto Press. Toronto.* See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

[51] Maynard Keynes J. *(1921) (2004),' A Treatise on Probability,' MacMillan, London.*

Knight emphasised that an uncertainty is immeasurable and not calculable. By contrast, risk is measurable by using the **formula: Risk = chance * effect.**

While **Keynes,** on the other hand**, didn't distinguish risk from uncertainty**. He claimed that life was dominated by uncertainty, not probability.

The Knight' definition dominated, and is still dominant in practices of risk assessment and risk management and in many scientific disciplines. It's used in technical risk analysis to calculate expected benefits and monetary costs. Knight's concept of risk narrows the focus to the probability of events and the magnitude of specific consequences.

It has had a major influence on 'risk regulation', becoming the "*golden formula*" and the basis of what is referred to as the classical or *positivistic risk approach,* which developed in the course of 20th century. Following the risk approach, two phases are distinguished and are ideally institutionally separated: **identification and evaluation of risk (risk assessment)** and taking measures to control risks that are deemed **unacceptable (risk management)**.[52]

2.10 Risk in Philosophy: An element of risk is present in every decision of our life from simplest decision to complex decisions. We can say that risk is a universal concept. Every risk is measured *sui generis* dimensions. There are various factors in a risk and each factor varies for each risk. It can be said that every decision maker cannot take assessment of every risk.

A structured decision-making process involves logic with assumptions.[53] As is suggested we can make the following assumptions: 1. the analyst involved has the appropriate skills and capabilities; 2. all the relevant factors are examined; 3. the significance of each factor is established; 4. all the information data is available.

Using these assumptions we can think of the **role of an underwriter in insurance/reinsurance situation as the key decision maker in the assessment of the risk. While at one level the underwriter may be working with logic-using claims history as information to make logical deductions, it must be realized that an important part of his judgement constitutes of the human element.**

It is often the case that the fundamental risk proposition can be represented in the following manner:

[52] Maynard Keynes J. *(1921) (2004),' A Treatise on Probability,' MacMillan, London.*
[53] John C. Chicken and Tavnar Posner, "The Philosophy of Risk," Publisher: Thomas Telford, London, 1998, Chap.01, Introduction, Pg. 1-04.

Risk = Hazard * Exposure

or

Risk = Probability (event) * Damage (event)

The term 'harm' can be related to financial loss, and 'exposure' can be related to frequency and probability of exposure.

The various factors involved in particular risk is incorporated by numeric tables and these numeric tables provide the sound 'logical foundation' on which one can lay down the foundation for the development of philosophy of risk. This analysis of numeric tables becomes crucial for 'decision –making' and an 'underwriter' applies himself to it.

Risk sometimes seems to be based on observations and sometimes it appears to be based on logic. Data is among other things, a collection of facts or values and it can be qualitative and quantitative. Quantitative is based on descriptive information while qualitative data is based on numerical information. With the invention of computers the analysis of risk has increasingly become more data-centric, particularly in the financial sector.

In the financial sector risk taking is considered to be acceptable at a price that gives adequate return. Un-predictability and uncertainty decided returns on investment and the insurance law thrives on such un-surety, with the funding of risk being done accordingly. While the calculation of risk is based on quantitative data, the acceptability of risk by a decision maker is made on 'subjective' basis.

2.11 Risk Management and Risk Insurance: Risk is a factor that is present in almost everything we do and it points to the potential of variation in the outcomes. Combined with choice theory, economics and finance, we use the concept of 'risk' and 'risk aversion' as two important cornerstones to generate opinion from variations of outcome. Processing the information in this manner it projects a coherent picture and sometimes public-opinion is influenced by this systemically biased information. Events of interest are presented by mathematical computational tables and probabilities for society to make its judgment. From a mathematical perspective, risk theory can be defined as a collection of related ideas for designing, managing and 'regulating' a risk enterprise[54].

[54] Gerber, H.V., "Introduction to Mathematical Risk Theory," 1979, S.S. Huebner Foundation, Monograph-No.08, Pg. 08.

Again for regulation of risk and risk insurance there are various directions: 1. calculation of loss reserves, 2. credibility in market, 3. calculation of total claims and compare with probabilities using numeric methods, 4. study of premium collection, and 5. determination of tariff.

But they still look upon the theoretical methods to calculate actuarial liability and build public opinion. The main reason for this is **element of human judgment for a rational opinion.**

Risk theory provides a mathematical base for the study of life and general insurance risk. What is insurance from an individual point of view? For individual it's an economic device whereby the individual substitutes a small amount (the premium) for a large uncertain financial loss (the contingency insured) that would exist if there were no insurance.

The primary function of insurance is therefore security. Insurance doesn't decrease the uncertainty nor does it alter the probabilities of financial loss connected with the happening of event, rather the insurance contract provides freedom from the burden of uncertainty. It is a method of loss distribution.

Turning to the '**contract of insurance',**[55] which is made between parties called the insured and the insurer, it is distinguished by the presence of five elements:

1. The insured possesses an interest of some kind susceptible of pecuniary estimation, known as an insurable interest.
2. The insured is subject to a risk of loss through the destruction or impairment of that interest by the happening of designated perils.
3. The insurer **assumes** that **risk of loss**.
4. Such **assumption** is part of a general scheme to distribute actual losses among a large group of persons bearing similar risks.
5. As consideration for the insurer's promise, the insured makes a ratable contribution to a general insurance fund, called a premium.

Similarly, Channell J.[56] stated that there were *three* requirements for a valid '**contract of insurance**': *First*, it should provide some benefits for the policy holder on the occurrence of

[55] Vance, W.R., "Law of Insurance", Second Edition, 1930, Pg.02.
[56] *Prudential Insurance Co. vs. IRC (1904) 2 KB 658.*

some event; *secondly*, the occurrence should involve some element of 'uncertainty'; and *thirdly*, the uncertain event should be one which is *prima facie* adverse to the interest of the assured. However the judge then added that this was not exhaustive definition.

The insurance industry is under pressure to establish sufficient liquidity to meet its daily contingencies. The insurance industry strives to improve its balance sheet in a legitimate way. Financial re-insurance provides 'window dressing' for the financial statement of the ceding company, while another approach is the securitization of the future revenues. These measures are to cut cost, increase market share and take advantage of economies of scale. In emerging economies the insurance regulators have to be vigilant about these cut cost measures so that the insurance policies provide the real benefits to policy holder.

Risk management is a scientific approach to the problem of risk with an objective to reduce and eliminate risk faced by a business firm. Russell gives one of the earliest definitions on concept of 'risk management'[57]. The significant changes came due to introduction of 'operation research' and 'management science' in the field of risk. It was shift in focus from 'descriptive courses' to 'normative decision theory'. Decision theory is based on application of scientific methodology. The idea was that cost of risk can be managed in a firm. From here another concept evolved 'enterprise risk management' or 'financial risk management' that deals with market risk, credit risk and liquidity risk.

Though risk management is not science it uses scientific approach to the problem of managing risk. The risk management is again grouped into two broad approaches: risk control and risk financing. Risk control deals with risk avoidance and risk reduction. Risk financing deals with the risk retention and risk transfer.

Risk management differs from insurance management in philosophy. In insurance is accepted norm to deal with risk and retention and its exceptions. Risk management contributes directly to **profit of organization** by controlling cost of risk. The risk management process involves: 1. Risk Identification; 2. Risk Evaluation. Risk identification is continual process and requires systemic approach like: analysis of documents in records, flowchart which highlight potential accidents that can harm profit, internal communication system, and performing risk analysis on the basis of questionnaires that are the prime means of *fact finding.* In particular it needs to be noted that probable risk hazards to a firm are

[57] Russell B. Gallagher, "*Risk Management: A New Phase of Cost Control*," Harvard Business Review (Sep-Oct), 1956.

identified by asking a series of penetrative questions. Risk identification is also known as risk mapping or risk profiling.

Risk evaluation/assessment ranks the importance of risk and possible severity of loss, frequency of the loss and probability of the loss occurring. The decision to retain a risk is accomplished by using reserve funds and the risk can also be transferred through insurance. Risk evaluation and risk review in risk management tries to ensure that all procedures are followed and properly executed in relation to decisions made under conditions of uncertainty. The cost of risk is analyzed by quantification and risk audit consists of a detailed systemic review of risk management program including continual checks or the risk identification. The final stage in the above process is to exercise financial control that eliminated the financial consequences due to the risk. In this endeavor, the magnitude of compensation claims helps in risk assessment. It needs to be noted that this practice must be distinguished from the legal dimensions and involves the use of scientific mathematical computational tables and probabilities are used to a large extent.

Risk evaluation in insurance is purely technical function. The process involved is very complex and involves certain assumptions as well as uncertainties.

Evaluation of Risks as per Probability and Severity

Low Frequency/ High Severity ←	Low/High	→ Catastrophic Losses
Medium Frequency/ Medium severity ←	Medium/Medium	→ Medium Sized Losses
High Frequency/ Low severity ←	High/Low	→ Small Losses

The above figure shows one such process which helps in evaluation of risk. Risk is assessed using certain statistical methods assuming probability distribution, measures of central tendency, measures of variation, etc.

The probability distribution methods used in risk management are both empirical and theoretical grounding. The theoretical distribution often used in risk management includes

distributions such as the binomial, and Poisson distributions[58]. Whatever the distribution used, by construction it is assumed that the events occur in a random fashion.

However it needs to be realized that risk cannot be mapped solely on the basis of statistical methods because **then it would become akin to mechanical software that runs on the computer.** Instead in addition to this **there is also an element of judgment, a human perspective, which comes after experience.**

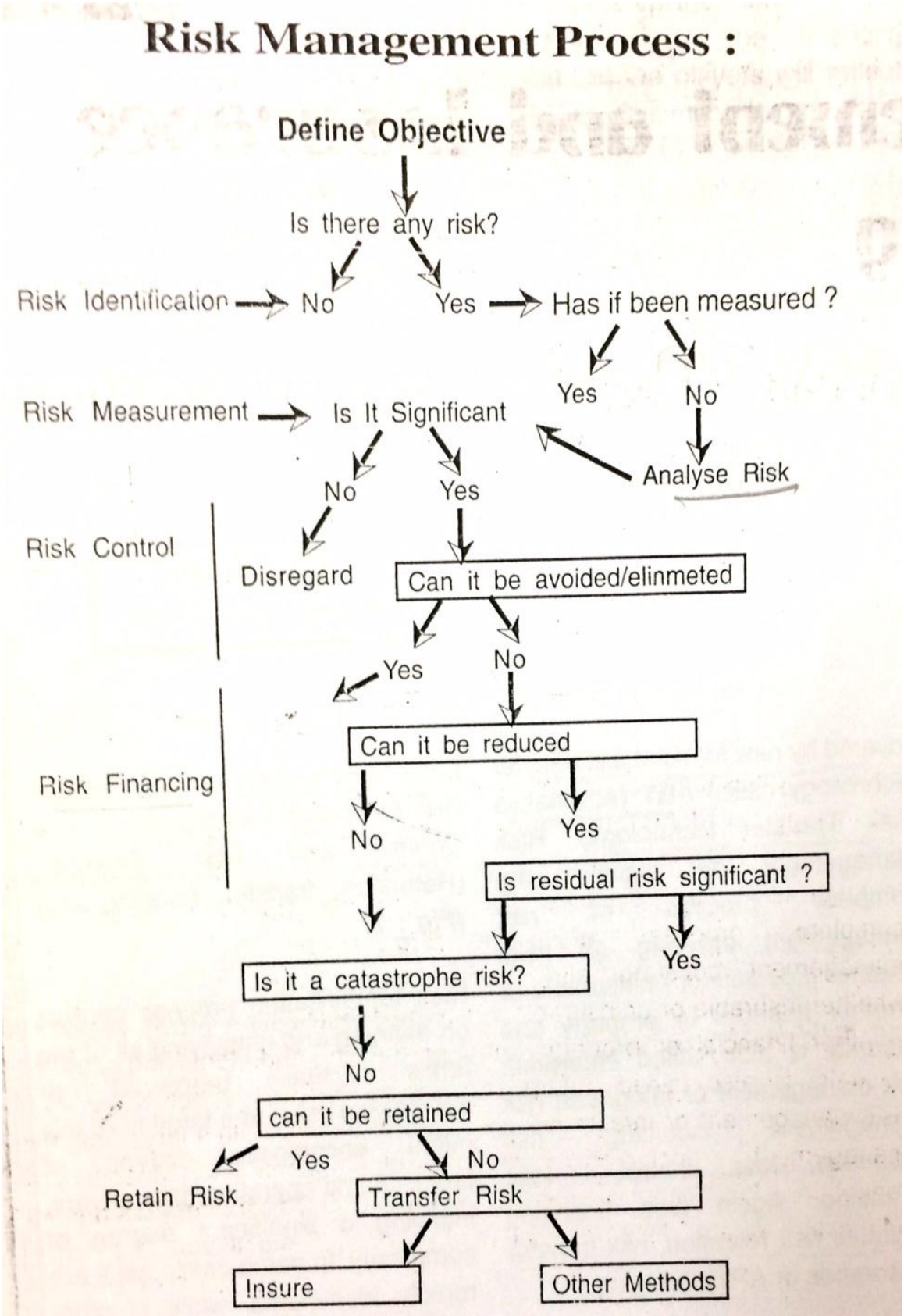
2.12 Underwriting: An insurance company by pulling risk together transforms the uncertain events that would exist if there were no insurance. The insurance company pays the claims for this uncertain event in exchange for a premium. The insurance company creates value by reducing volatility of claims where the underwriter plays an important role in the insurance company as he accepts and rejects a risk. An underwriter is a professional who has the ability to understand the risk underwritten. He gains this ability through theoretical study and years of experience dealing with claims in industry.

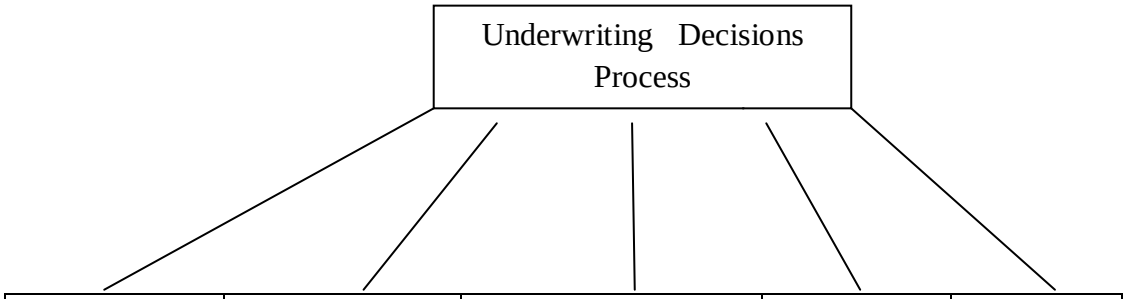
Underwriting keeps fine balance of protecting insurance company interest and giving market agent an equitable insurance policy to sell in market. Insurance companies device new methods of detecting risk to maintain competitive advantage in insurance market. This method is called risk assessment process. The process involves the acceptance or rejection of risks. An underwriter attains large volume of premium income sufficient enough to meet uncertain contingencies.

The below figures will highlight the underwriting decision making process:

[58] K. Seethapathi and U. Jawaharlal, *General Insurance-I*, First Ed. 2005, ICFAI University Book Press, Hyderabad; Chapter .1, Pg. 62-63.

Risk Management Process :





Reject	Prevent	Reduce	Transfer	Accept
Decline Risk	Add Conditions	Fix Retention Limits of Insurance	Reinsurance	Retention

The insurers are always concerned with the amount of loss and how to limit liability, so that there is no stress on the financial statement. The fixing of risk retention is the essence of sound underwriting process. The total amount of risk can be bifurcated into that which is retained by the insurer and the balance is transferred to reinsurance. While we describe reinsurance later here we note that the company improves its balance sheet in legitimate way by using financial reinsurance.

It has been suggested that such financial reinsurance provides window dressing for the financial statement of the ceding company. This is a technical function and a multi-disciplinary approach and expertise is required to do the job.[59] Two factors are taken into account for risk retention, namely Probable Maximum Loss (PML) for a class of risk and the Maximum Amount of Loss (MAL), the insurer is prepared to incur for that class of risk.[60]

Reinsurance is one of the most important elements in underwriting of insurance. It is an arrangement whereby an original insurer who has insured a risk, insures a part of that risk again with another insurer to reduce his liability of the original insurer. By the limiting of retention and putting into effect reinsurances, an insurer brings about a wider distribution of risks and thereby secures of risks.

[59] K. Seethapathi and U. Jawaharlal, *General Insurance-I*, First Ed. 2005, ICFAI University Book Press, Hyderabad; Chapter .1, Pg. 62-63.
[60] K. Seethapathi and U. Jawaharlal, *General Insurance-I*, First Ed. 2005, ICFAI University Book Press, Hyderabad; Chapter .1, Pg. 62-63.

To the risk assessment one has to follow certain guidelines to formulate a strategy. The tools for this strategy are based on customer management relationship approach that keeps a check on client's requirements. The end of the strategy is to protect the brand image and contribute to profit. The insurance policy product is built with high level of technical expertise to suit the client's need. The product captures the market position with a profit margin. The feedback from client is taken at regular interval and data/information is analyzed to maintain the technical competitive price.

To calculate a premium on the basis of 'claims data' the below mentioned, is one of the formulas which is being used by the insurance companies:

Net Loss Ratio = Claims (C) / Premiums (P)

or

Net Loss Ratio = Total Retained Yearly Incurred Claims / Total Annual Earned Premiums Retained.

2.13 Principles of Probability and Rate-Making: The main aim of an insurance premium is to have an economic value which covers the legitimate loss of a policy holder but this rate must cover the insurance company's expenses and enables them to make reasonable profit. To survive in insurance market insurance companies keep rates reasonable. The premium is (as mentioned earlier) the consideration paid by the insured under a contract of insurance. The various tariffs provide for minimum premium to be charged under policy, so that administrative expenses of issuing the policy are covered.

In emerging economies like India, the Insurance Act provides certain guidelines under Section 64 V (B).[61] The rate of the premium is arrived at, on the basis of past loss experience. To fix the rates, it is essential to give quantitative value to the risks.

The process of rate making is extremely technical and involves the selection of classes of exposure units with adequate mathematical computational table, statistical analysis into probability of the loss.

[61] The Insurance Act, 1938- Section 64 V (B) No risk to be assumed unless premium is received in advance. (1) No insurer shall assume any risk in India in respect of any insurance business on which premium is not ordinarily payable outside India unless and until the premium payable is received by him or is guaranteed to be paid by such person in such manner and within such time as may be prescribed or unless and until deposit of such amount as may be prescribed, is made in advance in the prescribed manner. (2) For the purposes of this section, in the case of risk for which premium can be ascertained in advance, the risk may be assumed not earlier than the date on which the premium has been paid in cash or by cheque to the insurer.

In simple it can be mathematically expressed[62] as:

GP= PP+ LP (GP)

where,

GP is the Gross Premium,

PP is the Pure Premium, and

LP is the Loading Percentage.

Insurers handle forecasting errors in rate-making by calculating estimates of risk using probability distribution. The premiums are calculated based on the **historical data**, which are refined using mathematical techniques for better credibility and reliability in case the past data is limited in scope especially in the case of emerging economies. The historical data acts as supportive evidence in rate-making. The data submitted with each type of rate change includes loss payments, expenses for handling and paying claims, operating expenses of the insurance company and underwriting losses. In justifying rates, the companies must project those figures into the future when the inflation and other factors will increase the cost of things for which insurance company pays claims.

The uniqueness arises from the fact that the actual claim cost, which is the major element of the cost, becomes known only later, only after happening of the event. The factors considered while pricing general insurance products are claims costs, business acquisition cost, management expenses, margin for fluctuations in claims experience and reasonable profit.

An important observation on applying the principles of probability to the experience of the past, we arrive at the probability that an event will occur in the future. To justify a conclusion such as this it is necessary: (1) that a sufficiently large number of instances are considered to give a dependable average and, (2) that the conditions of the future coincide with those of the past.

Since the conditions of the future don't ordinarily coincide exactly with those of the past, some allowance must be made for possible changes, and therefore **underwriting is not**

[62] Riegel and Loman, Insurance Principles and Practices, Third Ed. 1928, Pg. 22-24. See also: K. Seethapathi and U. Jawaharlal, *General Insurance-I*, First Ed. 2005, ICFAI University Book Press, Hyderabad; Chapter .1, Pg. 80-81.

merely a mathematical science but involves an element of judgment or human factor. This is the crux of underwriting.

A distinction must be made between this chance or degree of probability and the degree of uncertainty connected with the event. The function of insurance is primarily the reduction of the uncertainty, and secondly, the reduction of the probability.

Product pricing requires external 'regulations' to ensure equity to the insured, promised services are delivered, and stable insurance market. Price regulation is frequently used to bring about equity and fairness between different risk categories and classes of the insured. The nature and extent of price regulation reflects the attitude and philosophy of the state towards insurance operations in its territory. It also introduces rigidity in the market and once framed it is seldom revised in response to changes in the dynamic market.

2.14 Stabilization of Claims Ratio: A major fluctuation in claims costs can seriously undermine the financial structure of an insurance company. Such fluctuations are typically caused by certain factors that include: Inadequate spread of risks unexpected weather conditions social-economic developments; high third party liability; Terrorism; and, new technology risks of unproven nature.

The **weather condition and terrorism** are some of the issue which have hampered the financial structure of the emerging economies. The **new technology** is especially in the field of **aviation and nuclear technology** where the **emerging economies don't have the technical expertise.**

In the absence of reinsurance such fluctuations may call for un-timely increase in the premium rates for direct business which can affect the overall business underwritten. Reinsurance absorbs the impact of such fluctuations allows the insurer to achieve a premium spread over several years and be seen in the eyes of his insured as financially stable.

2.15 Financial Stability: Prudence requires that an insurer manages and regulates his affairs in such a manner that no surprises by way of large losses endanger his financial stability. A single event can be capable of producing a claim or series of claims of very high magnitude. The partial reinsurance arranged on individual risks the insurer would also require supplementing this protection to limit his loss arising out of a single event causing loss or damage to many risks.

2.16 Risk Society and Financial Risk: The Imperfect Science of Regulation: In modern risk society another financial innovation to be noted is insurance linked securitizations.[63] This category of securities accelerated during the 1990's with the development of catastrophic risk bonds (here in after CAT).

Securitization is one of the most important innovations of modern finance[64]. Securitization has the potential to improve market efficiency and capital utilization in the insurance industry. Through securitizations insurers can reduce their cost of capital, increase return on equity, and improve other measures of operating performance. Securitization offers insurers the opportunity to unlock the embedded profits in blocks of insurance presently carried on balance sheet and to provide an alternative source financing in an industry where traditional financing mechanisms are often restricted due to financial regulation. Securitization also offers new sources of risk capital to hedge against underwriting risk more efficiently than traditional techniques such as reinsurance.

Similarly in modern risk society another other financial innovations namely **Derivatives and Hedging**[65] can enable firms in the financial sector to manage and distribute their risks more effectively and efficiently. Derivatives[66] a transaction in which risk is shifted from one party to another at a value derived from an underlying price, event, or other reference point were linked to commodities. Chicago futures exchanges introduced financial derivatives contracts.

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[63] Securitization in its widest sense implies every process that converts a financial relation into a transaction. John Reed, the then Chairman of Citicorp defines securitization as ," the substitution of more efficient public capital markets for less efficient higher cost, financial intermediaries in the funding of debt instruments."

[64] Alex Cowley and J. David Cummins, "*Securitization of Life Insurance Assets and Liabilities*", The Journal of Risk and Insurance, Vol.72, No. 02 (Jun. 2005), Pg. 193-226.

[65] **Hedge or Hedging:** A position in which the risk of holding the assets in the position is reduced or eliminated by simultaneously holding an asset designed to insure against the risk. The process of reducing risk by balancing position such that exposures are offset.

Hedge Fund: A generalized term for a fund that is available for investment only by sophisticated investors, according to SEC rules in the United States. These funds are permitted to engage in strategies that are not available to other types of funds such as mutual funds. Such strategies can include short selling and highly leveraged positions.

[66] **Derivatives** are instruments (generally contracts) that are traded and drive their value based on the value of an underlying instrument, usually a security. Generally, the derivative contract obligates the writer of the contract to perform a service for the purchaser of the contract (e.g. future and options). A derivative contract is that which promises delivery of a commodity or financial asset at a fixed future for an established price. Derivatives are instruments that derive their value from other instruments or things. Derivatives are primarily used for managing risk or to make a limited gamble on expected future market activity without expending the full investment commitment required in the cash market. Derivatives represent a contingent claim created by a contract in which one party agrees to perform a service or deliver an instrument in the future if certain conditions are met as defined in the agreement. The market for derivatives divide into three major categories: 1. Exchange traded options 2. Exchange traded futures and 3. Available over the counter.

If we look at the financial market crisis and its pattern we realize that they overestimated the financial risks and were in believe that it can be identified correctly and controlled but failed to recognize new unanticipated risks. This overestimation was due to over-reliance **mathematical computational table, statistical analysis and probability of the loss by negating human experience in judgment of opinions.**

First, scientific advancement for e.g. **nuclear power and aviation insurance** may generate more unanticipated risks (for e.g. terrorism). Second, all risk can be identified and controlled which indirectly leads to greater risk taking effort and third, more thrust on risk management which is prone to error.

This also strengthens the **Becks argument** and 'rationality' that modern society has over reliance on past experience and scientific data and strongly believes that we can calculate and control risk but failed to anticipate uncertain events.

Historical experience supplemented by assumptions can prove inadequate guide to control the impact of financial market crisis.

This also leads us to follow some **best practices** which are: remove the shortcomings in governance i.e. risk mapping; broad understanding of risks; adoption of risk culture in firms; and to control deterioration of underwriting skills. Compromising on experience underwriter and giving more impetus to **mathematical computational table, statistical analysis and probability of the loss**.

Risk regulation has developed where the firms from governance perspective undertaking their own modelling of operational risks. A balance had to be struck between the cost of such precautions and the low perceived probability of an extreme event occurring.

Assessing the scope of regulation and integrating with prudential supervision.

This invigorates the point that, financial market players overestimate their ability to identify and control the risks arising from the use of this financial innovation relying too heavily on the imperfect science of risk management based on **mathematical computational table, statistical analysis and probability but overlooking the element of judgment which human element in decision**. They failed to understand that inter-linking of the financial markets globally and have become more contagious.

Similarly regulators cannot foresee or control all risks they have to focus on how to improve risk management capabilities based on society to be used for society before it impacts the

financial institutions.

2.17 Conclusion: The financial market crisis has demonstrated that markets underestimate financial risk. This is premised on the belief that they can identify risk correctly and control it. The truth is that they are unable to identify new unanticipated risks. This overestimation can be attributed to an over reliance on the mathematical computational table, statistical analysis, and the probability of the loss by negating human experience in judgment of opinions.

Scientific advancement in the field of nuclear power and aviation insurance may generate some unanticipated risks. Terrorism is another area which is prone to unanticipated risks. This bolsters Becks claims that modern society has over reliance on past experience and scientific data and strongly believes that we can calculate and control risk but failed to anticipate uncertain events.

Risk governance based on best practices which are: To remove the shortcomings in governance i.e. risk mapping; broad based understanding of risks; adoption of risk culture in firms; and to control deterioration of underwriting skills. This is the need of hour. The firms need to identify the scope of regulation and integrate it with some prudential supervision. The role of the underwriter is central to this terrain. Risk management based on mathematical computational table, statistical analysis and probability but overlooking the element of judgment which is human element in decision making.

Regulators cannot foresee or control all risks. Therefore, they have to focus on how to improve risk management capabilities. It is a continuous process. Every decision will impact society whether it's rational or irrational. Impact on society will not be in numbers it will be human beings.

Chapter 3

Risk Regulation: A Questionable Concept?

Chapter 3

Risk Regulation: A Questionable Concept?

3.1 Introduction: The concept of '*risk regulation*[67]' started appearing in the social science literature around 1990's; with the role of 'State' being a central focus in risk regulation study. More particularly, risk regulation examines the theories of risk society, the regulatory state, and the perlustration of society.

The Study of regulation involves focusing on both the enhanced rights and obligations of the citizen and the increased role of the government. Such study also looks at the co-ordination between various regulatory sources as well as the shift from public ownership and centralized control to privatized institutions and the encouragement of market competition. This marks a shift from government to governance, where the state attempts to 'steer' or 'regulate' economic activities.

There is also a tension between internationally effective regulation and regulation that works within the confines of the national economy. This kind of concern is a key issue in debates regarding the relationship between risk regulation and trade.

Insurance companies are regarded as the original risk experts producing information, which (as pointed out earlier) is based on mathematical computational table, statistical analysis and probability. Both industry as well as the government uses this information to make policy.

Risk regulation in some states means less state intervention. There is a dearth of empirical case studies and comparative work that will enable an assessment of what kinds of participation seem to work and the circumstances that foster or inhibit participation.

Despite the large literature on globalization, the study of transnational risk regulation is still a relatively under researched area and with it an important area is neglected namely, the social distribution and inequalities of risk which in turn perpetuates the risk.

Is it the case that all sectors of society suffer the effects of poor risk management equally? What are the effects of transnational global agreements by developing countries? This chapter

[67] Peter Taylor-Goodby and Jens O. Zenn, " *Risk in Social Science*" Oxford University Press, First Edition, 2006, Chapter .10, Risk, Regulation, Management, By Bridget Hutter, Pg. 210.

risk regulation studies the social and political contexts and the broader social and cultural contexts in which risk are understood and experienced.

3.2 Regulation:

3.2.1 Defining Regulation: The term regulation is heavily contested. It has been given multiple academic interpretations by various academic scholars who have all tried to find a universal acceptable definition[68] - but this task is very difficult.

There are broadly speaking *three approaches to regulation*: 1. Regulation as set of targeted rules, 2. direct intervention of the state in the 'economy of the state' in the form of 'market correction', which can also be termed as the 'governance' perspectives; and 3. as a mechanism of social control. Amongst the three approaches the second approach is observed to be the most applied (It is also sometimes called *hybrid* of regulatory approaches).

If we look at the emphasis of which type of regulation prevails in a country, it can be said that in the U.S. regulation is largely carried out by the promulgation of authoritative set of rules backed by the 'power of sanctions.'[69] The federal regulatory commissions in the U.S. while working independently also follow this approach.

The U.K. follows a different regulatory approach, where rule-making powers are retained by the central government and the legislature, and the enforcement and monitoring is in the hands of 'facilitators or utilities regulators'.[70] While this might be the actual manner in which regulation takes place in western economies, the *political economy analysis of regulation* largely sees the act of regulation as the state apparatus steering the economy, as 'economic regulation' and 'social regulation'.[71]

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[68] Y. Dezalay, 'Between the State, Law and the Market: The Social and Professional Stakes in the Construction and Definition of a Regulatory Arena', in J. Mc Cahery, W. Bratton, and C. Scott(Eds.), *International Regulatory Competition and Coordination* (Oxford: Oxford University Press, 1996), pg. 59-60. Robert Baldwin, Colin Scott and Christopher Hood, " *A Reader On: Regulation(Edn.)*" Oxford University Press, First Edition, 1998, Chapter .01, Introduction, By Robert Baldwin, Colin Scott and Christopher Hood, Pg. 01.

[69] Robert Baldwin, Colin Scott and Christopher Hood, " *A Reader On: Regulation(Edn.)*" Oxford University Press, First Edition, 1998, Chapter .01, Introduction, By Robert Baldwin, Colin Scott and Christopher Hood, Pg. 03. See P. Selznick, ' Focusing organizational Research on regulation,' in R. Noll (Ed.) , *Regulatory Policy and the Social Sciences* (Berkeley : University of California Press, 1985), 363 and on the history of U.S Regulation, R. Rabin, '*Federal Regulation in Historical Perspective*,' in P. H. Schuck (Eds.) '*Foundations of Administrative Law* (New York and Oxford University Press, 1994).

[70] G. Majone, "The *Rise of the Regulatory State in Europe*" (1994) *17, West European Politics*, pg. 77-101, 81. See also: Robert Baldwin, Colin Scott and Christopher Hood, "*A Reader On: Regulation" (Edn.)* Oxford University Press, First Edition, 1998, Chapter.01, Pg. 01.

[71] **Economic Regulation** the object of regulation is conventionally to substitute for competition in order to discipline natural monopolies into the consumer responsiveness and innovation that rivalry would otherwise

Looking at regulation using the approach from economics, we can differentiate between **positive and normative** theories. The positive approach to regulation allows us to see what the consequences of regulation are while the normative approach tells us what regulatory acts to follow that will lead to economic efficiency. Further positive theory is again divided into public interest and private interest theories of regulation. Public interest theory suggests that market failure can cause non-effective utilization of resources and regulation works as the facilitator for market correction while on the other hand private interest theory sees regulation as a strategy by private interests to control the state apparatus including the legislature and the executive to serve their own purpose.

In the U.S. the public interest approach is linked with the 'Progressive Era' and another term coined for this approach is the functionalist[72] approach. It may be observed that a question remains whether 'market failure' is in fact a technical problem or does it reflect differences in perception and cultural bias among regulators or even among economists this point is a contested issue[73]. Coase[74] has rightly said that: "*Until we realize that we are choosing between social arrangements which are all more or less failures, we are not likely to make much headway*".

Public officials who tackle market imperfections indirectly incorporate legal regulatory regimes with the assistance of elected legislatures to do public good in the name of 'public policy'- they can be termed as agents for 'public interest[75]' (but sometimes these interest

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produce and to correct inevitable market failures or to provide the conditions under which competition can develop.

Social regulation tends to operate across all sectors of the economy and commonly involves the exercise of state influence in relation to the unwanted effects of industrial activity on society such as pollution or risks to the health and safety of employees and consumers. See also: '*Responsible Regulation: An Interim Report of the Economic Council of Canada'* (1979), 43-4, extracted in I. Ramsay, Consumer Protection: Text and Material (London: Weidenfield and Nicholson, 1989), Pg. 59-62.

[72]Francis refers to the public interest approach as the 'public/legal perspective' (Francis, The Politics of Regulation, 7), which may be to credit academic lawyers with rather naivety than is merited.

[73] J. Malkin and A. Wildavsky, 'Why the Traditional Distinction between Public and Private Goods Should be Abandoned,'*(1991) 3 Journal of Theoretical Politics 335-78*; and compare R.D Adams and K. McCormick, 'The Traditional Distinction between Public and Private Goods Needs to be Expanded, Not Abandoned'*(1993) 5 Journal of Theoretical Politics.*

[74]Coase, Ronald H. 1964, "The Regulated Industries: Discussion, "American Economic Review, May, Pg. 194-7.

[75] G. Stigler, *'The Economic Theory of Regulation*,' (1971), 2, Bell Journal of Economics and Management Science Pg. 1-21; See also: G. Kolko, '*Railroads and Regulations'* Pg. 1877-1916 (Princeton: Princeton University Press, 1965); Also See: Mitnick, '*The Political Economy of Regulation*', Pg.111-20.

groups protect the interest of economically powerful)[76], this type of analysis can be spoken of as 'traditional regulation.'[77]

3.2.2 Economics in Regulation: Sam Peltzman[78] attempted to re-work economic theories to accommodate self-seeking regulation and de-regulation as a study of design of institutions and their adaptability. This approach brought about a gap in prescriptive regulation, which is being filled by 'agency' or it is alternately termed as the 'post-revisionist account.'[79] The role of 'institutions'[80] and the 'systems'[81] in 'agency theories' and the strain it causes in government bodies to analyze the information and predict regulatory behavior has been highlighted.

Irrespective of the various terminology used in the economic explanation of regulation, a variety of issues that go beyond those that have been covered by this approach can be raised. For one, it can be said that 'economically powerful' have used regulation for 'wealth

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[76] J.M. Landes, '*The Administrative Process*' (New Haven: Yale University Press, 1938); R.E. Cushman,' *The Independent Regulatory Commissions'* (New York: Octagon Books, 1941); See also: B. Mitnick, '*The Political Economy of Regulation'* (New York: Columbia University Press, 1980), 91.

[77] C.R. Sunstein, '*After the Rights Revolution: Re-conceiving in the Regulatory State*' (Cambridge, Mass: Harvard University Press, 1990)

[78] S. Peltzman,' The Economic Theory of Regulation after a Decade of De-regulation,' *(1989) Brookings Papers on Microeconomics 1-59.* Compare the Institutional analysis of M.A. Eisner, Regulatory Politics in Transition *(Baltimore: John Hopkins University Press, 1993), and Chapter.8.*

[79] M.E. Levine and J.L. Forrence ," Regulatory Capture , Public Interest and the Public Agenda: Towards a Synthesis,' *(1990) ,6 Journal of Law , Economics and Organization 167;* M.D. McCubbins, R.G. Noll and B.R. Weingast,' Administrative Procedures as Instrument of Political Control,' *(1987) 3 Journal of Law, Economics, and Organization 243;* J.R Macey,' Organizational Design and Political Control of Administrative Agencies,' *(1992) 8 Journal of Law, Economics, and Organization 93;* B. Mitnick,' The Theory of Agency: The Policy "Paradox" and Regulatory Behaviour,' *(1975) 24 Public Choice 27-47 ;* M.J. Horn and K.A. Shepsle,' Commentary on " Administrative Agreements and the Political Control of Agencies*," (1989) 75 Virginia Law Review 499* . For a European Perspective on agency theories see Michael Bergman and Jan-Erik Lane," Public Policy in a Principal –Agent Framework" *(1990) 2 Journal of Theoretical Politics 339-52.*

[80] Central among the institutional approaches is the development of the concept of 'regulatory space' in L .Hancher and M. Moran, 'Organizing Regulatory Space,' in Hancher and Moran *(Eds.), Capitalism, Culture and Regulation.* See also Daintith, 'A Regulatory Space Agency '(*1989) 9 Oxford Journal of Legal Studies 534 -46.* The concept is further developed in C. Shearing," A Constitutive Conceptions of Regulation,' in P. Grabosky and J. Braithwaite (Eds.), *Business Regulation and Australia's Future (Canberra: Australian Institute of Criminology, (1990), Ch. 5.* Shearing argues that the sharp distinction between regulation and the market is unhelpful as is the notion of regulation as the only form of control over business. See also: M.A. Eisner, 'Regulatory Politics in Transition *(Baltimore: John Hopkins University Press, 1993).*

[81]The Application of System Theory to Regulation is most closely associated with Gunther Teubner: 'Juridification-Concepts, Aspects, Limits, Solutions," in *G Teubner (Eds.), Juridification of Social Spheres (Berlin: Walter de Gruyter, 1987), 3-48.* See also: W.H. Clune,' Implementation as Autopoietic Interaction of Autopoietic Organizations,' in *G. Teubner and A. Febbrajo (Eds.) , State Law and Economy as Autopoietic Systems- Regulation and Autonomy in New Perspective (Milan: Guiffre, 1972), 485 -513.* Applying the theory to Self-regulation See also: J. Black,' Constitutionalsing Self -*Regulation' (1996) 59 Modern law Review 24-55.*

accumulation.'[82] It can also be said that policies or 'public policies' are being put effect under the umbrella of regulation for the purpose of 'wealth accumulation' and 'utility',[83] positions.

However to get at the heart of understanding regulation we need to see **the relationship between regulation and the state**. Where **economists**[84] insist on seeing the regulating state **in terms of regulation of utilities and sectors**, protecting consumers and promoting competition, in **contrast political scientist** see the regulating state from the viewpoint of the origin and **implementation of the regulatory process**.[85]

3.3 The State:

3.3.1 The Role of State: To understand State as a socio-legal political arrangement is very slippery. It is hard to identify the methodology that should be applied to figure out what is it in practice that defines the **modern liberal State**[86].The State in its starkest form has been

[82]See also: G. Stigler, The Citizen and the State: Essays on Regulation *(Chicago and London: University of Chicago Press, 1975);* R. Posner,' Theories of Economic Regulation,' *(1974) 5 Bell Journal of Economics and Management Science 335;* S. Peltzman,' Towards a More General Theory of Regulation', *(1976) 19 Journal of Law and Economics 211;* W.A. Jordan,' Producer Protection, Prior Market Structure and the Effects of Government Regulation,*' (1972) 15 Journal of Law and Economics151.*

[83]A. Downs, " *An Economic Theory of Democracy* ", (New York: Harper and Rowe, 1957); M. Olson, *The Logic of Collective Action: Public Goods and Theory of Groups* (Boston and Oxford: Harvard University Press and Oxford University Press, 1965.)

[84] J. Vickers and G. Yarrow, Privatization: An Economic Analysis *(Cambridge, Mass. And London: MIT, 1988);* M. Armstrong, S. Cowan, and J. Vickers, Regulatory Reform: Regulation of Economic Activity *(Cambridge, Mass. And London: MIT, 1994);* M. Bishop, J. Kay, and C. Mayer (Eds.) Privatization and Economic Performance, *(Oxford: Oxford University Press, 1994).* A Broader range of concerns (**going beyond utility sectors**) and approaches (**going beyond economic**) may be found in M. Bishop, J. Kay, and C Mayer (Eds.), The Regulatory Challenge (*Oxford: Oxford University Press, 1995*). Robert Baldwin, Colin Scott and Christopher Hood, "*A Reader On: Regulation (Edn.)*" Oxford University Press, First Edition, 1998, Chapter.01, Introduction, By, Robert Baldwin, Colin Scott and Christopher Hood, Pg. 08.

[85]B. Hogwood, Trends in the British Public Policy: Do Governments Make any Difference? *(Buckingham: Open University Press, 1992);* J. Hills, De-regulating Telecoms (*London: Frances Pinter, 1986*). See also: R.G. Noll," Government Regulatory Behaviour: A Multidisciplinary Survey and Synthesis, in R.G. Noll (Eds., Regulatory Policy and the Social Sciences *(Berkeley: University of California Press, 1995).*See also: Francis refers to the public interest approach as the 'public/legal perspective' (Francis, The Politics of Regulation, 7), which may be to credit academic lawyers with rather naivety than is merited. See also: J. Malkin and A. Wildavsky, 'Why the Traditional Distinction between Public and Private Goods Should be Abandoned,'*(1991) 3 Journal of Theoretical Politics 335-78*; and compare R. D Adams and K. McCormick, 'The Traditional Distinction between Public and Private Goods Needs to be Expanded, Not Abandoned'*(1993) 5 Journal of Theoretical Politics.*

[86] Counter View: The **Neo- liberal state** should favor strong individual private property rights the rule of law and the institutions of freely functioning markets and free trade. Neo-liberal therefore tends to favor governance by experts and elites. See also: *Chang, Globalization; B. Jessop, 'Liberalism, Neo liberalism, and Urban Governance: A State Theoretical Perspective Antipode',; 34/2 (2002), pg. 452-72.; N, Poulantzas, 'State, Power, Socialism' Trans. P. Camiller (London: Verso, 1978); S. Clarker (Ed.) 'The State Debate', (London: Macmillan (1991); S. Haggard and R. Kaufman (Eds.) 'The Politics of Economics Adjustment: International Constraints Distributive Conflicts and the State Princeton,': Princeton University Press , 1992); M. Nozick Anarchy State and Utopia (New York : Basic Books, 1977) Also See: J. Stieglitz, The Roaring Nineties won his*

characterized as **"a *law and order.*"** State with its role conceived to be primarily that of defending people from external aggression, and management of social and economic life is not regarded as government responsibility.

However the decline of laissez faire doctrines gave rise to "*collectivism*" which favored state intervention in social control and regulation of individual enterprise.[87] Gradually the State started looking at interests of social justice, assumed positive role inspired by the dogma of "*collectivism*[88]". Out of all this emerged the "*social welfare state*[89]" which lays emphasis on the state as a vehicle of socio-economic regeneration and welfare of the people. The Indian version of this can be encapsulated from an observation of the Indian Supreme Court which has stated" *The Constitution envisages the establishment of welfare at the federal level as well as the state level. In a welfare state the primary duty of the government is to secure the welfare of the people*."[90]

3.3.2 New Paradigm of State: Around the 1990's all over the world a movement started which believed in the failure of the 'welfare state' and they labeled this failure as 'the regulatory crises',[91] initiating a process of de-regulation. Simultaneously 'public policy'[92]

Nobel Prize for his studies on how asymmetries of information affected market behavior and outcomes. See D. Harvey, Conditions of Post-Modernity, Harvey, The Limits to Capital (Oxford: Basil Blackwell, 1982) See also: P. Evans Embedded Autonomy: States and Industrial Transformations (Princeton: Princeton University Press, 1995); R. Wade , Governing the Market (Princeton University Press, 1992); M. Woo-Cummings (Eds.) The Development State (Ithaca, NY : Cornell University Press,1999).

[87]Dicey, Law and Public Opinion In Britain, 126-210 (1962); Dicey wrote in 1914 that " by 1900 , the doctrine of laissez faire, inspite of large element of truth which it contains, had more or less lost its hold upon the English people",

[88] India's federal democracy has undergone many changes over the past decades. **Fiscal Federalism: The New Mantra:** *Have liberalization and deregulation strengthened or weakened the centre? Has this new changed paradigm outstripped the evolution of the polity and political thinking? Has there been a new discourse of 'states' 'rights' which has moved from political economy to economic assertion?* **Accommodating Local Aspirations: A New Imperative:** The 1990's can be viewed as a defining period of transition for India's polity; they paved the way for a political system which was potentially more federal. While co-operative and competitive federalism have become the new buzz words in the political discourse of the day, it is important to remember that Indian Federalism lives in the states and the districts.

[89]MacIver, The Web of Government 236 (1965); Robson, Justice and Administrative Law 33 (1951); Pettgman, nature of Administrative Law, *44 Virginia L.R.* 685, 696 (1958), Calvin Woodard, Reality and Social Reform: The Transition from Laiseez Faire to the Welfare State, *72 Yale L.J. 286*; Friedman, The State and the Rule of Law in Mixed Economy (1971).

[90]*Paschim Banga Khet Mazdoor Samity vs. State of West Bengal , AIR 1996 SC 2426.*See also:*Mukherjea, C.J. in Ram Jawaya v. State of Punjab, AIR 1955 SC 549; Crown Aluminum Works v. Workmen, AIR 1958 SC 30; Gujarat Steel Tubes v. ITS Mazdoor Sabha , AIR 1980, SC 1896. See also: Samatha vs. State of Andhra Pradesh, AIR, 1997 SC 3297 at 3326.*

[91]Concerns with the inefficiency, and even counter-productive effects of regulation in such fields as rent control and minimum wages have been long been a source of criticism. See also: Cranston, Legal Foundations of the Welfare State, 155-60. See also: N. Reich, *'The Regulatory Crisis: Does it exist and can it be solved*? Some Comparative Remarks on the Situation of Social Regulation in the USA and in the European Economic Community' (1984) *2 Environments and Planning C: Government and Policy Pg. 177-197.*

came to be the new measure in the administrative reforms and the state came to be viewed less as a 'welfare state' but rather as a 'regulatory state'.[93]

In the theories of **political science** and other social sciences the regulatory state was initially seen just in terms of shifts in the administrative structure, but later on, it was realized it's a

[92]**Public Policy** is big business. All citizens receive the benefits and pay the costs of public policy. How is policy made? Why do so many problems remain despite the vast resources spent on policy? What is public policy: There is no single definition of public policy? (It is what governments say and do, or do not do.) Policy may be either slated explicitly in laws or in the speeches of leading officials or implied in programs and actions. A change in policy may be proposed and debated in public with the full participation of interest groups and the mass media, or policy may change covertly as when a chief executive decides to embark on a new venture under a cloak of secrecy or with a contrived explanation designed to mislead the public. See also: *The Hidden Dimensions of Public Policy: Private Governments and the Policy Making Process, Journals of Politics 37 (Feb. 1975).***Our approach to the analysis of Public Policy making:** Public Policy is a complex field that lends itself to numerous analytical approaches. Some studies examine the details of individual policies showing what officials intend to accomplish and what actually is accomplished (and sometimes what ought to be accomplished). See also: *James W. Davis Jr. and Kenneth M. Dolbeare, Little Groups of Neighbors: The Selective Service System (Chicago: Markham, 1968) James S. Coleman et al Equality of Educational Opportunity (Washington, D.C.: United States Government Printing Office, 1966.) Franacis Fox Piven and Richard Cloward Regulating the Poor: The Functions of Public Welfare (Newyork: Pantheon 1971) and Kenneth M. Dolbeare& Phillip E. Hammond , The School Prayer Decisions (Chicago: University of Chicago Press, 1971)* Other seek to extrapolate societies needs into the future in an effort to identity emerging problems that require the attention of policymakers. Analyses of policy can also compare policies across jurisdictions attempting to assess the relative importance of various factors (e.g., economic development and political party competition in the formulation of public policy. *See also: Donella H. Meadows, Dennis L. Meadows, Jorgen Randers and William W. Behrens III, The Limits of Growth (Newyork: Universe, 1972); H.S.D Cole, Christopher Freeman Marie Jahoda and K.L.R Pavitt Eds. Models of Doom: A Critique of the Limits of growth (Newyork: Universe 1973); and Bruce Briggs, Against the Neo-Malthusians," Commentary 58 (July 1974). Thomas R. Dye, Politics Economics and the Public (Chicago: R and McNally 1966); Ira Sharkansky and Richard I Hofferbest, "Dimensions of State Politics Economics and Public Policy," American Political Science Review 63 Sep 1969 and Arnold J. Heidenhamer Hugh Hedo and Carolyn Teich Adams Comparatie Public Policy New York: St Martin's 1975.***Public Opinion:** One potential criterion decision makers can use in determining policy is public opinion. Reliance on public opinion as the basis for decision making conforms to a prominent view of the way decision ought to be made in a democracy. **Rationality:** A second possible criterion decision makers can rely on in formulating policy is rational analysis: 1. Identify a problem: Is there a problem? If so, what has caused it? 2. Clarify and rank Goals: What should be done about the problem? What is the priority of this goal in relation to other goals? (i.e. in relation to solution for other problems) 3. Collect all relevant options for meeting the goal and all available information on them. 4. Predict the consequences of each alternative and assess then according to standards such as efficiency and equity. 5. Select the alternative that comes close to achieving the goal perhaps for the least cost and with the greatest equity. Policy makers are the constrained not only by the complexities of using public opinion or rationality as guides to policy making but also by the actions of politicians the legacy of the past the nature of government organizations and economic considerations. Politics doesn't end with the formulations of policy. Many of the same problems that hinder rational decisions making also limit the implementation of policy. An aide to John F. Kennedy: "*The President was discouraged with the State Department almost as soon as he took office. He felt that it too often seemed to have a built in inertia …. It spoke with too many voices and too little vigor. It was never clear to the President… who was in charge, who was clearly delegated to do what, and why his own policy line seemed consistently to be being altered or evaded.*" *See also: Theodore C. Sorenson Kennedy (Newyork Harper & Row 1965, pg. 322.)*

[93]Levi-Faur, D., 2007, Regulatory Governance, In: P. Grziano& M. Vink (Eds.), *Europeanization: New Research Agendas, Palgrave, Palgrave Macmillan, pp.102-114.*Levi-Faur. D, 1998. The Competition State as a Neo-mercantilist State: Restructuring global Telecommunications. *Journal of Socio-Economics, 27, 665-85.*See also: David Levi-Faur,' *The Odyssey of the Regulatory State: Episode One: The Rescue of the Welfare State,'* Working Paper No. 39, November, 2011, Jerusalem papers in Regulation &Governance, pg 1-35.

complex web of institutions, jurisdictions, branches, offices, programs, rules, customs laws and regulation[94].

In practice, the public expenditure[95] spent on regulatory compliance was passed on to the consumers in U.K as well as in U.S., which halted the involvement of the state in direct regulation. As stated by Johnson "*A regulatory, or market-rational, state concerns itself with the forms and procedures-the rules, if you will of economic competition, but it does not concern itself with substantive matters*."[96] This type of view on regulation has come to prevail in the literature covered by fields such as Law and Society, Law and Economics, and Public Administration[97].

Perhaps some of the most important observations in this regard have been made by 'Majone' who sees the 'regulatory state'[98] as an ideal state where governments delegate policy decisions to bodies not subject to democratic pressures enabling administrative and economic efficiency will rule. This formula clearly is feasible and works well in the context of the European Union. Such view supports the Keynesian 'macro-stabilization'[99]by a state whose

[94]Novak W.J. 2008. The Myth of the "Weak" American State, *The American Historical Review. Vol. 113 (3), pp. 752-772. See also:* Anderson, J.E. 1962. '*The Emergence of the Regulatory State*', Public Affairs Press, Washington. See also: David Levi-Faur,' *The Odyssey of the Regulatory State: Episode One: The Rescue of the Welfare State,'* Working Paper No. 39, November, 2011, Jerusalem papers in Regulation &Governance, pg 1-35.

[95]Bardach E, Kagan RA 1982 Going by the Book: *The Problem of Regulatory Unreasonableness. Temple University Press, Philadelphia. See also* Mitnick B. 1980. *The Political Economy of Regulation. Columbia University Press, New York.* M. Loughlin and C. Scott," The Regulatory Sate," in P. Dunleavy et al., *Developments in British Politics 5 (London: Macmillan, 1997).*J.Q. Wilson and P. Rachal,' Can the Government Regulate Itself?*' (1977) 46 Public Interest 3-14;* C. Hood and C.Scott,' Bureaucratic Regulation and New Public management in the U.K.: Mirror-Image Development?' *(1996) 23 Journal of Law and Society 321-45.* The New Regulatory Appraisals' heralded in the Deregulation Unit's Regulation in the Balance documents of 1996. Do, however, demand that cost assessment for regulatory proposals should look at costs not merely to business (as formerly) but also to consumers and the government. See also: Johnson, C. 1982. *MITI and the Japanese Miracle: The Growth of Industry Policy. Stanford:* Stanford University Press.

[96]J.Q. Wilson and P. Rachal,' Can the Government Regulate Itself?*' (1977) 46 Public Interest 3-14;* C. Hood and C. Scott,' Bureaucratic Regulation and New Public management in the U.K.: Mirror-Image Development?' *(1996)23, Journal of Law and Society 321-45.* The New Regulatory Appraisals' heralded in the Deregulation Unit's Regulation in the Balance documents of 1996. Do, however, demand that cost assessment for regulatory proposals should look at costs not merely to business (as formerly) but also to consumers and the government. See also: Johnson, C. 1982. *MITI and the Japanese Miracle: The Growth of Industry Policy. Stanford:* Stanford University Press.

[97] Rose Ackerman, S. 1992. *Rethinking the Progressive Agenda: The Reform of the American Regulatory State,* The Free Press, New York. See also Sunstein, C. 1990. *After the Right Revolution: Re-conceiving the Regulatory State,* Harvard University Press, Cambridge, Mass.

[98] G. Majone," *The Rise of the Regulatory State in Europe*," West European Politics, 17 (1994), 77-101. See also Majone G. 1997. From the Positive to the Regulatory State, Journal of Public Policy, 17, 139-67. David Levi-Faur,' *The Odyssey of the Regulatory State: Episode One: The Rescue of the Welfare State,'* Working Paper No. 39, November, 2011, Jerusalem papers in Regulation &Governance, pg 1-35.

[99] Rose Ackerman, S. 1992. *Rethinking the Progressive Agenda: The Reform of the American Regulatory State,* The Free Press, New York. See also Sunstein, C. 1990. *After the Right Revolution: Re-conceiving the Regulatory State,* Harvard University Press, Cambridge, Mass. See also: Seidman H. Gilmour R.S. 1986.

main purpose is to deal with correction of market failures. Others see in this view a negative dimension and label the regulatory state as a '*neo-liberal state*' that restricts itself to correction of market failures, causing an amalgamation of the '*risk state*' and the '*welfare state*' into one.

3.4 The State and Regulation: Regulation is thus by now considered to be state-intervention[100] in the economic affairs of the state – '*the concept of regulation*' having changed and matured with passage of time. To discern the various innovations and to understand the regulatory process in different sectors requires us to see how the processes of regulation have been envisioned and adapted over time.

The traditional approach is the 'administrative approach' that is practically applied in various domains such as consumer protection, financial services, pollution, or occupational health and safety. More current forms of regulation have indirectly replaced all other forms of 'state intervention' in the economy in of U.K. and up to some extent over the whole of Europe[101] - with some people in fact speaking of **'supra-national regulation.'**[102] The State is in fact being constantly re-invented[103] in this context. New forms of governance have come to test old ideas and to re-invent government 'one department at a time'[104]. In understanding

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Politics, Position, and Power: From the Positive to the Regulatory State, Oxford: Oxford University Press, 1986. See also: G. Majone," *The Rise of the Regulatory State in Europe*," West European Politics, 17 (1994), 77-101. See also Majone G. 1997. From the Positive to the Regulatory State, Journal of Public Policy, 17, 139-67. David Levi-Faur,' *The Odyssey of the Regulatory State: Episode One: The Rescue of the Welfare State,'* Working Paper No. 39, November, 2011, Jerusalem papers in Regulation &Governance, pg 1-35.

[100]T. Danitith, 'A Regulatory Space Agency' (1989) 9 Oxford Journal of Legal Studies 534-46. Danitith suggests that the 'vocabulary and conceptual apparatus of 'regulation' only spread to the UK from across the US at the end of the 1970's , and explains this by reference to 'apparent parallelism of the approach to the government-industry relations pursued by the Carter and Reagan administrations in the US and the Thatcher government in the U.K' at pg. 535. See also: Robert Baldwin, Colin Scott and Christopher Hood, "*A Reader On: Regulation(Edn.)*" Oxford University Press, First Edition, 1998, Chapter.01, Pg. 01.

[101]Robert Baldwin, Colin Scott and Christopher Hood, "*A Reader On: Regulation"(Ed.)* Oxford University Press, First Edition, 1998, Chapter .01, Introduction, By Robert Baldwin, Colin Scott and Christopher Hood, Pg. 01. See also: A Comparative account of the use of the public sector as a policy instrument, is provided by L. Hancher, "*The Public Sector as Object and Instrument of Economic Policy*," in T. Daintith (Ed.), *Law as an Instrument of Economic Policy* (Berlin: Walter de Gruyter, 1988), 165-236. For North America see M.J. Trebilcock and J.R.S. Prichar,' *Crown Corporations: The Calculus of Instrument Choice'* (Toronto: Butterworth, 1983). An account of the shift away from public ownership towards regulation of the private sector in Europe provided by G. Majone," *The Rise of the Regulatory State in Europe*," West European Politics, 17 (1994), 77-1010, See also T. Prosser and M. Moran," *Conclusion: From National Uniqueness to Supra National Constitution,*", in T. Prosser and m. Moran (Edn.), *Privatization and Regulatory Change in Europe* (Buckingham: Open University Press, 1994).

[102]Robert Baldwin, Colin Scott and Christopher Hood, "*A Reader On: Regulation(Edn.)*" Oxford University Press, First Edition, 1998, Chapter .01, Introduction, By Robert Baldwin, Colin Scott and Christopher Hood, Pg. 02.

[103]Osborne, D. and Gaebler,T. '*Reinventing Government,' 1992, Addison Wesley Longman.*

[104]Davis, G., 'The Great Wheel: Public Sector futures in Canberra and Brisbane,' *84,'Canberra Bulletin of Public Administration', Pg*.61.

regulation it is also important to see how the contents of the various components that have come to comprise regulation.

Traditionally it is common to associate regulation with administrative adjudication. When a dispute arises between an administrative agency and a private person, it is settled by the administration, referred to as administrative adjudication[105]. Wade and Philips rightly observe: "… *Modern governments give rise to many disputes which cannot appropriately be solved by applying objective legal principles or standards and depend ultimately on what is desirable in the public interest as a matter of social policy*." This makes it important for us to look at the 'contents of administrative law'.

3.5 Administrative Law: Administrative Law has been characterized as the most "*outstanding legal development of the twentieth century.*"[106] Sir Ivor Jennings has said "*Administrative Law is the law relating to the administration. It determines the organization, powers and duties of Administrative authorities."*[107]

Administrative law provides analyses for regulation, giving the government a basis to exercise its power through a set body of rules. Administrative law deals with three questions: *what* kind of authorities and institutions make up the administration; what powers do they have; *where* does the application of rules come from; and to *what* extent do these rules govern, and *what* really happens in practice.

While effectiveness and efficiency is desired from an administrative government, fair treatment is another component of administrative government. Thus administrative law is also concerned with the issues as to what extent existing 'rules and procedures' achieve the fair treatment for an individual.

Before turning to other issues, let us briefly go over some of the principles that are used in administrative law. In administrative law state officials rationally and impartially apply legal rules and principles to the cases that come before them. This process can be thought of in terms of a **'Benthamite Vision'** where social goals are set and law and legal institutions

[105]Constitutional Law, 1965, Pg. 699; See also: the Reports of the Franks Committee 1957, op. 8-9.**Franks Committee:** "*Tribunals have certain characteristics which often give them advantages over the Courts. These are cheapness, accessibility, freedom from technicality, expedition and expert knowledge of their particular subject."*

[106]Vanderbilt's, Introduction to Schwartz, French Administrative law and the Common Law World XIII (1954).

[107] Jennings, Law and the Constitution, (1959), Pg. 217.

become effective instruments for achieving them[108].

Rules can be analyzed in *four*[109] dimensions:

1. **Substance:** What does the rule say?

2. **Character:** Whether the rule is permissive or mandatory, distinguishing between may/ shall?

3. **Status:** Does the rule have legal force and the sanction attached to it? And, lastly,

4. **Structure:** What is the function of the rule?

However, often enough, there is the possibility, that the decisions of judges may be products of 'judicial discretion'. While lawyers label such discretion as the absence of legal rules, 'discretion' is actually a concept that requires us to approach the issue from a diverse inter-disciplinary perspective, combining jurisprudential and socio-legal approaches. For instance **Dworkin** emphasized that **'Judicial Discretion'**[110] could easily be transferred to the administrative process.

The social theory explored by **'Habermas'** with his idea of 'communicative action' and **'Luhmann'** with his idea of 'complexity' are other examples where 'social theory' can also help us in understanding decision-making in this context.

The Principle of **'Judicial Review'** is also an important concern – it allows a judge to inquire on specific complaint; and whether the administrative decision maker has complied with legal standards. A strong tradition of critical writings[111] on this subject has been developed by **H. Laski, W. Robson and J.A.G. Griffith,** exposing values and premises on which judicial review is based.

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[108]D.J. Galligan, "A *Reader on Administrative Law*" Oxford University Press, First Edition, 1996, Chapter .1, Introduction: Socio-Legal Readings in Administrative Law, By D.J. Galligan, Pg. 35.

[109]J.M. Black , " Which Arrow": Rule Type and Regulatory Policy' (1995*) Public Law 94-117;* J. M. Black, Rules and Regulations *(Oxford: Oxford University Press, (1997);* Baldwin, Rules and Government, Chapter 5 and 6 and 'Why Rules Don't Work' *(1990) 53 Modern Law Review 321. See also W.Twining and D. Miers, How to Do Things with Rules (London: Weidenfield and Nicholson, 1991) and F. Schauer, Playing by the Rules (Oxford: Clarendon Press, 1991.)*

[110]R. Dworkin's, *Taking Rights Seriously* (Duckworth,, 1978) ;See: J. Habermas, *Legitimation Crisis* (London, 1973) ; See also: N. Luhmann, *Trust and Power* (London, 1969) and 'Differentiation in Society' (1971) *11 Can. J. of Sociology 29.* See also: D.J. Galligan, "A *Reader on Administrative Law*" Oxford University Press, First Edition, 1996, Chapter .1, Introduction: Socio-Legal Readings in Administrative Law, By D.J. Galligan, Pg. 38.

[111]H. Laski, *Authority in the Modern State* (1919) and A Grammar of Politics (1938), See: W Robson, *Justice and Administrative Law* (3rd Edn., 1951), See also: J.A.G. Griffith, *The Politics of the Judiciary* (4th edn., 1991); See also: D.J. Galligan, "A *Reader On Administrative Law*" Oxford University Press, First Edition, 1996, Chapter .1, Introduction: Socio-Legal Readings in Administrative Law, By D.J. Galligan, Pg. 50.

However the principal of central concern in relation to the administrative process is the **'Theory of Separation of Powers'**[112].In the U.S. the doctrine of separation of powers forms the foundation on which the entire structure of the Constitution is based. This system of "*checks and balances*" prevents any organ from becoming supreme. Thus the executive power is vested in the President[113], the legislative power in the Congress and the judicial power in the Supreme Court. The theory is that no organ of the government can trench upon or encroach upon the power of the other. Justice Cardozo has observed that," *the doctrine of separation of powers is not a doctrinaire concept to be made use of with pedantic rigour. There must be sensible approximation; there must be elasticity of adjustment in response the practical necessities of government which cannot foresee today the development of tomorrow in their infinite variety*.[114]"

Another example can be drawn from a government document from New Zealand that has the following to say: "*The constitutional separation of power, pluralistic politics, a flourishing civil society, a free and competent media, demanding and informed customers for government services, academic freedom and an economy all help keep government under control*"[115].

In fact it can be said that it is logically impossible to distinguish Administrative Law from the Constitutional Law[116]. **The Constitutional Law describes the various organs of the government at rest, while the Administrative Law describes them in motion[117].**

In U.S. the system of administrative adjudication has developed where administrative agencies discharge the functions of tribunal.[118] Adjudicatory proceedings in the American Supreme Court gave a very fine constitutional blessing to the workings of administrative agencies in the Case of *Crowell vs. Benson.*[119]An **echo** of this can be found in the Indian

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[112] **The Doctrine of Separation of Powers** is of ancient origin. The history of the origin of doctrine is traceable to Aristotle. See also: Vanderbilt: The Doctrine of Separation of Powers and its Present day Significance, 38-45 (1953). In the 16th and 17th centuries, French Philosopher John Bodin and British Politician Locke respectively had expounded the doctrine of separation of powers. But it was ***Montesquieu*** who for the first time gave it a systematic and scientific formulation in his book **'Esprit *des Lois*'** (The Spirit of the Laws) published in the year 1748. See also: Administrative Law Treatise,*1958, Vol.1. Pg.21.* See also: Friedmann and Benjafield, Principles of Australian Administrative law, *36 (1962)*; Jennings, 'Law and the Constitution', *265-288 (1952);* Allen Law and Orders *9-22 (1956).*

[113]Article II, Section I , of the U.S. Constitution.

[114]*Panama Refining Company vs. Ryan (1935), 293 U.S. 388 (400).*

[115]Strategic Management in Government: Extending the Reform Model in New Zealand, 1996, Wellington State Services Commission, Pg.14.

[116]D. D. Basu, Administrative Law, 1, (1986).

[117] Holland, Jurisprudence, 10th Edn. , Pg. 506.

[118]William A. Robson, Justice and Administrative Law, 1951, pg. 315.

[119]*Crowell vs. Benson, 285, U.S.22 (1932)*; This was a watershed case and a major victory for the administrative process. Prof. Verkuil has noted: "The lawyers of the time fought hard ….to keep the decision making in the

context - the Indian Supreme Court has defined 'Tribunal' in the following words, "*The expression 'tribunal' as used in Article 136 doesn't mean the same thing as 'Court' but includes, within its ambit, all adjudication bodies, provided they are constituted by the state and are invested with judicial as distinguished from administrative or executive functions*.[120]" It also gave the characteristics of the administrative tribunals.[121] But later it was heavily criticized by **Malimath Committee on the Functioning of the Tribunals**.[122]

3.5.1 Moving Away from Administration as Regulation: Recently in the pursuit of administrative reforms, [123](as mentioned earlier) the private sector has stepped into the domain of the public sector – with de-regulation, cost benefit analysis, market-oriented approaches becoming the key focus of regulatory activity.

Many economies (like the U.K. and India) have had to face privatization as an accompaniment to shifting regulatory fashions. In fact in an emerging economy it is the first step towards de-nationalization. These measures are intended to improve the efficiency of the organization. Such privatization can mean the 'transfer of property rights' from the public sector to private (Ownership transfer of public enterprises fully or partially to a private entity) or it can also take place without any sale of assets but with managerial modifications

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courts for two reasons. First, the adversary system with its opportunity for jury trials and other procedural protections meant less control by the decision maker over the process. Second, the judiciary antipathy to government programs provided a favorable environment for decisions. Thus the adversary system held its place as an importing value of classical liberalism even as the definition of liberalism is changing. See also: Edited: By Michael Taggart, "The Province of Administrative Law," Publisher: Hart: Oxford- London, 1997, First Edition, Chapter.05, Administrative Law for a New Century, Pg. 90-118.

[120]*Durga Shanker Mehta vs. Raghuraj Singh, AIR, 1954, SC. 520.*

[121]*Bharat Bank Ltd. vs. Employees, AIR 1950, SC 188. See also: Jaswant Sugar Mills vs. Lakshmi Chand, AIR 1963, SC 677. See also: Engineering Mazdoor Sabha vs. Hind Cycles Ltd. AIR 1963 SC 874.* **The Indian Supreme Court has observed the following characteristics:** 1. The proceedings before it must commence on an application which is in the nature of a plaint; *2.* It has the same powers as regards discovery, inspection, taking evidence, as are possessed by a Civil Court; *3.* Witnesses are examined and cross –examined as in a Court of Law; *4.*A party may be represented by a legal practitioner; *5.* The tribunal is required to decide on the basis of evidence adduced and according to the provisions of the statutes;*6.* Members of the tribunal are persons qualified to be Judges; *7.* It is required to sit in public; *8.* It must be capable of giving determinative judgment or award affecting the rights and obligations of parties; and, *9.* It must be endowed with State's inherent judicial power, meaning thereby that it has statutory origin.

[122]Report of the Arrears Committee: **Malimath Committee on the Functioning of the Tribunals**: **1989-90:** It observed: "*Several tribunals are functioning in the country. Not all of them, however, have inspired confidence in the public mind. The reasons are not far to seek. The foremost is the lack of competence, objectivity and judicial approach. The nest is their constitution, the power and the method of appointment of personnel thereto, the inferior status and the casual method of working. The last is their actual composition; men of caliber are not willing to be appointed as presiding officers in view of the uncertainty of tenure, unsatisfactory conditions of service, executive subordination in matters of the administration and political interference in judicial functioning. For these and other reasons, the quality of justice is stated to have suffered and the cause of expedition is not found to have been served by the establishment of such tribunals.*" See also: *L. Chandra vs. Union of India (1997) 3 SCC 261.*

[123]The **Administrative Reforms** measures can be listed as: 1. Make quality long-term decisions; 2. Creating and distributing knowledge; 3.Implementing decisions effectively; and 4. Mediating among competing interests.

(Management transfer can be in the form of Leasing, Franchise or Sub-contracting) where it ends up contracting out the delivery of public services to the private sector.

There is a fine balance between de-nationalization and maintaining a market discipline depending on whether there has been ownership transfer, management transfer or functioning with a more market oriented approach. Any measure that regulates the activity of a public sector undertaking comes under the preview of the public regulation, where the objective of this kind of regulation of the performance contract is to simultaneously increase both 'autonomy' and 'accountability'.

All in all it can be said that public agencies are using market approaches to achieve their regulatory goals. One of the primary causes of this is the declining financial budgets and devolution of public tasks to the private sector. There is also a proliferation of regulatory bodies. Where earlier adjudicatory procedures were used widely as it has important policy implications, now this reduction of the administrative government in the public sector has indirectly increased the 'power of shareholders'.

Corporate entities place enormous pressure on State to conform to the dictates of the market. What is public and what is private or at least what kinds of functions can be fulfilled in the private sector? These remain difficult questions, but now a new model of decision-making is followed based on 'bargaining and negotiation' to exercise 'discretion'. By and large the standard form of governance and control currently is to create by a statute a regulatory body with supervisory powers.

3.6 The Matrimony Alliance of Regulation and Governance: It may be noted that even if newer ways of thinking about regulation have taken place, the structure of the government is substantially the same, except now he strategy is to reform the administrative patterns. These administrative reforms of Government for better Governance typically include 'de-regulation'[124] of central controls and privatization of public authority, putting into place the marriage of the governance and the regulation that has perhaps re-defined the State.

The characteristics[125] of this are: 1. Bureaucratic regulation has been separated from service delivery; 2. The regulatory function of the government has been separated from the policy

[124]PUMA Report for OECD Paris, 'Ministerial Symposium on the Future of Public Services', 1996, Pg. 9-19.
[125] Jordana J. & Levi-Faur, D. (Eds). 2004. '*The Politics of Regulation'*. Cheltenham, Edward Elgar. See also: Levi-Faur, and D. Gilad S. 2004. '*The Rise of the British Regulatory State: Transcending the Privatization Debate.,'* Comparative Politics, 37 (1). Pg. 105-124. See also: Moran, M. 2000.' *From the Command State to Regulatory State?* Public Policy and Administration, 15 (4): Pg. 1-13. See also: Power, M. 1997, '*The Audit*

making function; 3. The Weberian bureaucratic model has being replaced by the regulatory model and 4. The relationship between regulators and other players is know based on formal 'rules' and 'contracts' rather than discretion. To quote Moran who connects administrative reform and governance in the following manner: "*In shorthand, 'regulatory state' is a product of the rise of the 'governance school' of those who see distinctive governing systems emerging to match contemporary conditions of high complexity. The subtle shift in usage from 'government' to 'governance' is itself intended to announce a move away from the old command modes of hierarchical classic bureaucracy to a world of negotiation within, and between, self steering networks. In these accounts the regulatory state is more or less openly identified as the successor to and the anti-thesis of, command."*[126]

If the 'Command and Control'[127] is perceived to be rule-making, rule-enforcement and application of rule-sanction, the 'Self-regulation[128]' version of regulation associated with the 'governance school' builds upon notions of 'state monitoring' and being 'discretionary' [129] and moving beyond the tentacles of 'command and control'.

Historically if we look back, we can see that there was *bureaucratization,* followed by *de-bureaucratization* and next *re-bureaucratization*[130] with newer forms of regulation pushing bureaucrats to indulge in *rule-making, rule-monitoring and rule-enforcement*[131]more in tune with newer versions of the regulatory approach.

Society: Ritual of Verification. 'Oxford University Press, Oxford. David Levi-Faur,' *The Odyssey of the Regulatory State: Episode One: The Rescue of the Welfare State,'* Working Paper No. 39, November, 2011, Jerusalem Papers in Regulation &Governance, Pg. 1-35.

[126]Moran, M., 'The *British Regulatory State: High Modernism and Hyper Innovation*', Oxford, Oxford University Press, 2003. Pg. 04.

[127] Baldwin, Rules and Government'; G. Ganz, Quasi-Legislation *(London: Sweet and Maxwell, 1987);* C. Hood, Administrative Analysis *(Brighton: Wheat-sheaf, 1986).*

[128]Ayres and Braithwaite, *Responsive Regulation*: cf. S. Dawson et al., *Safety at Work: The Limits of Self – Regulation (Cambridge University Press, 1988).* See also: Initially worked out in J. Braithwaite, '*Enforced Self-Regulation' (1982) 80 Michigan Law Review, pg.1466-1507.*

[129]R.G. Noll," Government Regulatory Behaviour: A Multidisciplinary Survey and Synthesis, in R.G. Noll (Eds., Regulatory Policy and the Social Sciences *(Berkeley: University of California Press, 1995).*See also: Francis refers to the public interest approach as the 'public/legal perspective' (Francis, The Politics of Regulation, 7), which may be to credit academic lawyers with rather naivety than is merited. See also: J. Malkin and A. Wildavsky, 'Why the Traditional Distinction between Public and Private Goods Should be Abandoned,'*(1991) 3 Journal of Theoretical Politics 335-78*; and compare R. D Adams and K. McCormick, 'The Traditional Distinction between Public and Private Goods Needs to be Expanded, Not Abandoned'*(1993) 5 Journal of Theoretical Politics. See also:* The arguments to the effect, that an agency may inflict capture on itself through a process of self-deception, as to the task to be achieved: R.A. Litz, *'Self-Inflicted Capture-An Exploration of the Role of Self Deception in Regulatory Enforcement'* (1995) 26 *Administration and Society*,' pg. 419-33.

[130]Eisenstadt, S.N. 1958. "Bureaucracy and Bureaucratization", *Current Sociology*, 1958, Vol. 7 (2), Pg. 99-124.

[131]David Levi-Faur, "*The Odyssey of the Regulatory State: Episode One: The Rescue of the Welfare State,*" Working Paper No. 39, November, 2011, Jerusalem Papers in Regulation and Governance, Pg. 1-35.

It is impossible here to cover all manifestations of this from all over the world but as a sample we may note the incorporation of these ideas in the governance discourse of countries all over the world. For instance the Canadian Centre for Management Development (here in after CCMD) explained it as:" *If government is going to operate with a greater focus on results rather than rules and with high degree of innovation in all functions (especially service delivery), there may be a need to revisit the concept of risk-taking in the public service and to develop a new understanding of acceptable risk parameters. This examination of risk parameters should extend to a discussion of the implications of public service – taking for ministerial accountability. One other dimension that could be explored is the appropriate risk management approach for public-private partnership arrangements which are emerging as an effective approach to many policy and service delivery issues*."[132]

3.7 Cross Border Regulatory Concerns: While we have couched the discussion so far within a domestic context it needs to be realized that there is also a cross border element to regulation. The distinction between domestic and global has blurred to some extent in today's world. There is intense competition within domestic economies, with corporate entities operating in domestic economy facing the challenge to meet break-even point, causing corporations to do business in various parts of the world and choosing to move their operations to more favourable regulatory jurisdictions.

If a state imposes high regulatory cost on its domestic industries it will encourage relocation favourable regulatory jurisdictions. From another perspective, many states now have their own trade representative in various countries around the world, aggressively seeking foreign investment, requiring their governments to play a pro-active role in the negotiation process to capture markets.

The increasing reliance of state on markets raises concerns and issues of efficient regulation in this context. This leads to a new discourse on the modes of operation in the market, especially in relation to companies doing business in multiple countries. Companies are free to reject the political costs of doing business in any one jurisdiction if they can move production around the globe relatively easily. In this world of expanding markets, the

[132]Office of the Auditor General of Canada, "*Toward Better Governance: Public Service Reform in New Zealand and Its Relevance to Canada"*, 1995, Government of Canada, Pg. 59. See also: "*State Service Commission, Strategic Management in Government: Extending the Reform Model in New Zealand*", 1996, Willington State Services Commission, Pg.04.

European Union has given rise to a new concept, which is a combination of rule making and **'supra-national rule'** application that is imposed over and above the national level.

The common market of the EU requires laws to be harmonized to remove the trade barriers so supra national bodies are essential. The impulse towards the creation of common markets and the creation of institution like European Economic Community and World Trade Organization brought in the development of the concept Supra-national Regulation[133], but this '**Principle of Supra-Regulation'**[134] cannot always be feasible, as it needs huge investment.

3.8 Critical Comments on Regulation: As we have seen contemporary regulation requires the state to mimic the market, adopt its language and to some extent the goal of the market. In this the strategy of a 'weak state' or a 'strong state' is hard to distinguish given this transformed role of the state. It is also the case that market discourses have been used frequently to structure various non-commercial regulatory approaches and this also means that one has to amend laws to serve market interests. The interest group model of administration law errs in the direction of under inclusiveness - it is unable to define who will participate in the policy making process of the state.

'Collective approaches' are the new mantra to societal problems that has blurred public/private distinctions. The state is over-stretching like a rubber band; this time it has stretched too far. Tension is bound arise when the regulation involved has delegated fully to the private sector. The cost benefit approach to regulation is a very narrow public interest discourse. One cannot just push the market value of wealth maximization; rather incentives should be structured in such as a way that it achieves public interests also.

The future aspect of administrative law will have to incorporate a **blend of private and public entity** and also ensure there is enough space for public discourse. The narrow technocratic cost benefit analyses will not sustain regulation - new models will have to legitimize new forms of public-private and state partnership. In all this a regulator must have sufficient legal powers to make regulation effective, as well as the presence of sufficient

[133] G. Majone, "Cross-National Sources of Regulatory Policy Making in Europe and the United States," *(1991), 11 Journal of Public Policy*, Pg. 79-106, 96.

[134]The tension between the apparent needs of integration and the protection of regulatory objective is captured in R. Dehousse, **Integration vs. Regulation**? 'On the Dynamics of Regulation in the European Community' *(1992) 30 Journal of Common Market Studies* Pg. 383-402. See also: A. Mc Gee and S. Weatherill, "The Evolution of the Single-Market: Harmonization or Liberalization," *(1990) 53 Modern Law Review*, Pg. 578-96; See also: McGowan and Seabright, "Regulation in the European Community,"Pg.232-6.

human capital. Amongst all these development of regulatory processes, critics have debated on 'accountability' of regulatory authorities and the burden of 'regulatory compliance cost'[135] that has impacted the institutions financially and administratively. The lack of **qualified human capital** is a constraining factor particularly in emerging economies. In such economies not only should a regulator should be operationally independent of political and commercial interest and accountable for the use of its powers but also competent - beside that right of appeal of the regulators' decisions, access to judicial review of the regulators decisions is very desirable.

In this we need to invoke the old and tested point that there needs to be an overall rule of law in place. The rule of law doesn't depend upon contemporary positive law, rather it consists of values and institutions that connote a climate of legality and legal order in which the liberal nations live and in which they wish to continue to live[136].

As the Indian Supreme Court has said that – *"The Concept of Rule of Law would lose its vitality if the instrumentalities of the state were not charged with the duty of discharging their function in a fair and just manner".*[137] In a similar vein we can quote the Indian Supreme Court Statement on its views on the Principles of Good Governance, "*The role model for governance and decision taken thereof should manifest equity, fair play and justice. The cardinal principle of governance in a civilized society based on rule of law not only has to base on transparency but must create an impression that the decision-making was motivated on the consideration of probity. The government has to rise above the nexus of vested interests and nepotism and eschew window-dressing. The act of governance has to withstand the test of judiciousness and impartiality and avoid arbitrary or capricious. Therefore, the principle of governance has to be tested on the touchstone of justice, equity and fair play and if the decision is not based on justice, equity and fair play and if the decision is not based on justice, equity and fair play and has taken into consideration other matters, though on the face of it, the decision may look legitimate but as a matter of fact the reasons are not based*

[135]Department of Trade and Industry, *Lifting the Burden* (London: HMSO, 1985), Command 9571: Burdens on Business (London: HMSO, 1985); *Deregulation and Contracting Out Act 1994*; Deregulation Unit, Cabinet Office, *Regulation in the Balance* (London: Cabinet Office, 1996); *Checking the Cost of Regulation* (London: Cabinet Office, 1996). See also: Robert Baldwin, Colin Scott and Christopher Hood, "*A Reader On: Regulation"(Ed.)* Oxford University Press, First Edition, 1998, Chapter .01, Introduction, By Robert Baldwin, Colin Scott and Christopher Hood, Pg. 02.
[136]Goodhart, "*The Rule of Law and Absolute Sovereignty*," Pennsylvania Law Review, Vol. 106, Pg. 946-963.
[137]*A.K. Karaipak vs. Union of India (1969) 2 SCC 262, 269.*

on values but to achieve popular accolade, the decision cannot be allowed to operate."[138]

Regulations are meant to correct market failures of competitive markets and ensure a level playing field. It also introduces competition where none existed before and restricts monopoly.

Competition is a critical ingredient in a successful market economy. Consumer/Investor has imperfect information about the quality of the financial services they purchase or about the seller of these services. Economies of scale arise due to changes in cost of producing. Economies of scope arise due to reduction in average cost. Agency theory[139] addresses information problems within firms and between them. Two mechanisms of contracts[140] are there in market: **one is cost-based regulation** it's also followed in U.S while the other is **performance based regulation** followed U.K. In emerging economies like India the government is the 'super regulator' and is reluctant to leave control. The purpose of the regulator is enforcing the cost of deviation from set of rules of the game. Industry groups, legislatures, government agencies and the courts create regulations in response to perceived defects in the market.

An observation that **there is no single market structure and regulatory system that is best for all economies or jurisdictions.** The main goal of the financial regulation is to minimize the systemic risk and harmonize the regulations across jurisdictions. If we look at the *raison d' etre* of the independent sectoral regulator is to correct market failures and ensure a level playing field. Radical economic and financial reforms in emerging economies were made due to the fiscal compulsion not with the purpose of structural reforms.

Therefore the regulatory institutions can only be evaluated in context to the prevalent structures and industry. Internal requirement of each industry is different. In emerging economy like India the active independent regulators were in the form of financial sector and infrastructure utilities. To strengthen them regulatory commissions were formed which were

[138]*Onkar Lal Bajaj vs. Union of India (2003) 2 SCC 673.*

[139]The Principal Agent problem (also known as agency dilemma or theory of agency) occur when one person or entity (the agent) is able to make decisions on behalf of or that another person or entity the principal. The dilemma exists because sometimes the agent is motivated to act in his own best interest rather than those of the principal. The agent principal relationship is as useful analytic tool in political science and economics but may also apply to other areas. See also: Saugata Bhattacharyya &Urjit R. Patel, *"New Regulatory Institutions in India: White Knights or Trojan Horses?"* Chapter.01"Introduction," By Devesh Kapur and Pratap Bhanu Mehta, Oxford University Press, First Edition, 2005, Pg. 406-456.

[140]There is another kind of contract called incentive contract which is has economic rent seeking behavior. See also: Laffont, J.J. and J. Tirole, (1994), "A Theory of Incentives in Procurement and Regulation," Cambridge: MIT Press.

advisory in nature or restrictive in nature implementing centrally planned outcomes. At global level the success of these regulatory institutions is context to effective interactions and integrations with various other bodies; legislative, administrative, judicial, civil society etc.

Regulatory uncertainty has become a deterrent in attracting private investment in many infrastructure segments.

There are some operational issues in the design of regulatory institutions: 1. the existing market structure and level of competition in the presence of public sector; 2. The introduction of competition through reform of the market structure, restricted to a particular sector, 3. The barriers to the entry in industry, including the allocation of powers, the concession and franchise; 4. Required changes in the existing legal framework, including separation of licensing and services provision wings of government entities. 5. The time framework required for changes in the market structures.

In emerging economies the reluctance of the government to divest its control over the important sectors is another reason. The appointments in these regulatory bodies are generally a retired civil servant whereas the administrative experience is not the criteria for the selection but it should be technical knowhow about the industry requirements.

Regulation has a cost and it has a significant cost to the emerging economies. Role of regulator should be to introduce competition wherever feasible but not introduce procedures like auctions. The working of regulatory authorities from economic perspectives is different for infrastructure sector and securities markets. So in order to understand the regulatory authorities in emerging economies:

- The performance of regulatory authority needs to be looked from objective of formation perspective.
- The design of the institution itself.
- The primary failure has been the lack of attention to the reform of market structures and an inadequate understanding of the nature of interaction between the market structure and the effectiveness of the regulatory process.
- The inadequate appreciation of the technology is another reason.
- The design of the regulation was mostly conceived in terms of intrusive cost-based behavioural models rather than incentive based.

- Another important barrier for effective regulation has been the pervasive presence of the public institution which delays the progress and competition. Which pins out that government was reluctant to relinquish of power and control and the fault design and ambiguity of legislations enhanced the problem.

3.9 Regulation of Risk:

3.9.1 Risk Regulation to Risk Governance in an Organization: Risk regulation is not restricted to 'governance of risk,'[141]in fact it extends to both the transformation of risk and the management of risk in the long term. In all this risk has clearly moved away from the mathematical computational table, statistical analysis and probability to being an important of the decision process.

Regulation of risk has also shaped itself for policy formulations[142]- ponder upon not only how to deal with 'technically defined risks' with the assistance of statistical analysis and probability but are busy in applying new methodology to find answers to questions raised by non-state actors on policy making. This has required new methodology in regulation of risk

[141]Hood C, Rothstein H., Baldwin R. (2001),The government of risk. Understanding risk regulation regimes, Oxford University Press, Oxford. Hutter, B.M (2001), Regulation and Risk. Occupational health and safety on the railways. Oxford University Press, Oxford. Lidskog R (2011) ,Regulating nature: public understanding and moral reasoning. Nature and culture 6(2): 149-167.Lidskog R. Sundqvist G (2011) The science policy citizen dynamics in international environmental governance. In: Lidskog R, Sundqvist (Eds.) Governing the air: science policy citizen dynamics in International governance. MIT Press Cambridge, MA, Pg. 323-359. Lidskog R. Soneryd L. Uggla Y (2005) Knowledge, power and control: studying environmental regulation in late modernity. J. Environ Policy Plan 7 (2) : 89-106. Lidskog R. Soneryd L. Uggla Y. (2009) 'Trans-boundary risk Governance. Earthscan, London. Lidskog R. Soneryd L. Uggla Y. (2011) Making Transboundary risks governable: reducing complexity, constructing identities and ascribing capabilities. Ambio 40 (2): 111-120. See also: Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

[142]Wynne B (1996) May the sheep safely graze? A reflexive view of the expert lay knowledge divide. In: Lash S, Szerzynsky B. Wynne B (Eds.) Risk, environment, modernity. Towards a new ecology. Sage , London, pg 44-83. See also Power M. (2007) 'Organized Uncertainty'. 'Designing a world of risk management'. Oxford University Press, Oxford. See also: Hood C, Rothstein H., Baldwin R. (2001), The government of risk. Understanding risk regulation regimes, Oxford University Press, Oxford. Hutter, B.M (2001), Regulation and Risk. Occupational health and safety on the railways. Oxford University Press, Oxford. Lidskog R (2011) ,Regulating nature: public understanding and moral reasoning. Nature and culture 6(2): 149-167.Lidskog R. Sundqvist G (2011) The science policy citizen dynamics in international environmental governance. In: Lidskog R, Sundqvist (Eds.) Governing the air: science policy citizen dynamics in International governance ,. MIT Press Cambridge, MA ,pg- 323-359. Lidskog R. Soneryd L. Uggla Y (2005) Knowledge, power and control: studying environmental regulation in late modernity. J. Environ Policy Plan 7 (2) : 89-106. Lidskog R. Soneryd L. Uggla Y. (2009) 'Trans-boundary risk governance. Earthscan, London. Lidskog R. Soneryd L. Uggla Y. (2011) Making Transboundary risks governable: reducing complexity, constructing identities and ascribing capabilities. Ambio 40 (2) : 111-120. Sabine Roeser, Rafaela Hiller brand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory " Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,, Pg. 27: 87;113;1001;1093.*

to be legitimized, requiring the build up of trustworthiness of organizations. Risk regulation is not only concerned with what is acceptable in terms of how we should mitigate or accept certain risks and hazards, but also concentrated on rules regarding the process itself and activities that target the understanding of risk and deal with 'public opinion' and 'perceptions concerning it'. 'Risk governance' is not limited to 'technical calculations of risk' it includes the evaluation of organizational level regulation of risks.

The focus of risk governance that is how uncertainties are organized in order to transform them into governable risk, the question of 'who should be involved or excluded in regulation process and on what grounds', and what aspects should be made open and transparent to others gain greater relevance due to the legitimacy gains and losses such decisions may generate. Risk Regulation is about more than just choosing 'regulatory instruments'[143]

3.9.2 The Confrontation between Risk Technical Expert and Layman: Technical risk analysis builds a wide gap between the expert and the layman. Public involvement is often very low due to incomprehension of technocratic analysis. This phenomenon can be found in every 'participatory project'[144]– the layman is not considered competent enough in decision-making process, causing alienation rather than engagement in decision-making process. Is this alienation because technical risk analysis experts are scared of acknowledging their own limitations? The answer to this possibly lies in the fact that since technical risk analysis is mostly based upon mathematical computational table, statistical analysis and probability, it

[143]Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), "*Handbook of Risk Theory" Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance,* Pg. 27: 87;113;1001;1093.Wynne B (1996) May the sheep safely graze? A reflexive view of the expert lay knowledge divide. In: Lash S, Szerzynsky B. Wynne B (Eds.) Risk, Environment, Modernity Towards a New Ecology. Sage, London, Pg. 44-83.See also: Power M. (2007) 'Organized Uncertainty'. 'Designing a World of Risk Management'. Oxford University Press, Oxford. See also: Hood C, Rothstein H., Baldwin R. (2001), The government of risk. Understanding risk regulation regimes, Oxford University Press, Oxford. Hutter, B.M. (2001), Regulation and Risk. Occupational Health and Safety on the Railways. Oxford University Press, Oxford. Lidskog R (2011) ,Regulating nature: public understanding and moral reasoning. Nature and culture 6(2): 149-167.Lidskog R. Sundqvist G (2011) The science policy citizen dynamics in international environmental governance. In: Lidskog R, Sundqvist (Eds.) Governing the Air: Science policy citizen dynamics in International Governance,. MIT Press Cambridge, MA, Pg. 323-359. Lidskog R. Soneryd L. Uggla Y (2005) Knowledge, power and control: studying environmental regulation in late modernity. J. Environ Policy Plan 7 (2): 89-106. Lidskog R. Soneryd L. Uggla Y. (2009), 'Trans-boundary risk Governance.Earthscan, London. Lidskog R. Soneryd L. Uggla Y. (2011) Making Transboundary risks Governable: Reducing Complexity, Constructing Identities and Ascribing Capabilities. Ambio 40 (2): 111-120.

[144]Irwin A, Michael M.,(2003)*'Science, Social Theory and Public Knowledge'.* Open University Press. 'Maidenhead'. *See also:* Sabine Roeser, Rafaela Hillerbrand, Per Sandin, Martin Peterson (eds.), " *Handbook of Risk Theory"* Epistemology, Decision Theory, Ethics, and Social Implications of Risks, Springer, First Edition, 2012, Chapter .02 and 40 and 44, A Panorama of the Philosophy of Risk; Levels of Uncertainty; The Economics of Risk; Sociology of Risk and Risk Governance, Pg. 27: 87;113;1001;1093.

overlooks the human factor and the reaction of society is not taken into consideration. This makes it vital that the regulation allows for participatory processes in the decision making process, opening up new vistas knowledge on risk and the regulation of risks.

Sociology of risk has shown how technical experts in society distribute information and empowers some groups while excluding weaker groups from the decision making process. Risk is too complicated to be delegated to experts and regulating risk ideally should not be about setting limits on actors to be involved in decision process but rather about decisionsas to whom to involve for what decision.

Science is often accorded the most prominent role in public dialogues. Sociologists argue that the discussion should not only include the meaning of the project and its risk from the perspective of the experts and regulators, but also from the perspective of the public and other stake-holders[145]. Presently the pendulum swings between technical experts and public opinion where one considers being a solution to the problem, another considers being part of the problem; however policy frames must meet on a more equal footing.

3.10 Regulatory Challenges and Implications for Reinsurance in Emerging Markets: Effort has been made to liberalize the reinsurance business[146] and harmonize the insurance regulation by international organization e.g. WTO, OECD, and IAIS. Since there is an indirect relationship between insurers and reinsurers, the regulation of reinsurance depends on regulation of the primary insurers. The regulation of reinsurance has been reduced or exempted in most of the countries[147]. Insurance regulation is based on the protection of

[145]Gieryn T.F. (1999), *'Cultural Boundaries of Science: Credibility on the line. University of ChicagoPress,* Chicago.See also:Hilgartner S., (1992),'The Social Constructions of Risk objects: or, how to pry open networks of risks,'*In: Short JF Clarke (Eds.)* Organizations, Uncertainties, and Risks, Westview Press, Boulder, pg. 39-53.

[146]Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431*. See also: OECD, Liberalization of Insurance Markets and International Cooperation on 25/02/2000, www.oecd.org : The OECD with a current membership of 30 countries accounting for about 90% of world insurance premiums has contributed to removing barriers to trade in insurance. See also: The Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations on 15/04/1994, 33 I.L.M (1994) available at: www.wto.org , The General Agreements on trade in Service is specified in the Annex 1B of the WTO Agreement. Two Provisions have substantial effect on the reinsurance activities namely the Annex on Financial Services, and the Understanding on Commitments in Financial Service. In the Annex on Financial Service, a member must not be prevented from taking measures for prudential reasons, including for the protection of investors, depositors, policyholders, or persons to whom a fiduciary duty is owed by a financial service supplier or to ensure the integrity and stability of the financial systems. See also: International Association of Insurance Supervisors (IAIS), Insurance Principles, Standards and Guidance Papers 1 (1999).

[147]Werner Pfennigstorf, "Public Law of Insurance in International Encyclopedia of Comparative Law", Vol. 06 Commercial Transactions and Institutions Chapter.7, Pg. 43, Martinus Nijhoff Pub. 1998.See also: Wallace

policyholders but the emphasis is also on protecting the solvency of the primary insurers alike.[148] The main concern of primary insurers and regulators is to transfer risk and extend the domestic to bear risk.[149]

The shortage of capital capacity to cover the assumed risk will restrain the diversification of insurance risk. These concerns require attention in relation to reinsurance arrangements of primary insurers, rather than a strict regulation of reinsurers. There has to be a balance between the net reserving bases that allow primary insurers to reduce their technical reserve by the amount of reinsurance arrangements as well as the loss of investments on the reinsurance claims which should be received in reasonable time to meet the claims.[150]It is vital that there is cooperation among the regulators in different jurisdictions to obtain financial information and recoverability of reinsurance.

3.11 Regulatory issues of Reinsurers: Reinsurers frequently engage in innovative financial instruments to diversify assumed insurance risk. Regulators face the dilemma in supervision of reinsurers in order to protect the financial security of reinsurance[151]. Reinsurers authorized by the government possibly carry on reinsurance business with integrity, prudence and professional competence but restrictive practices prevent free competition between **reinsurers** and effects prices[152].

Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

[148]Peter Falush, "The Development of Reinsurance Markets in the Economies in Transition in Insurance Regulation and Supervision in Economies in Transition,": Second East-West Conference on Insurance Systems in Economies in Transition OECD Proceedings 239 (1997). See also: Reinsurance Credit for Reinsurance Model Law in NAIC Model Laws Regulations and Guidelines, Vol. V, 785 (1999). See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*T. Henry Ellis & James A. Wiltshire, Regulation of insurance in the United Kingdom and Ireland B.3.4-01 (Feb. 2000). See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

[149] Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.* See also: IAIS Working Group on Reinsurance and Reinsurers: Relevant Issues for Establishing General Supervisory Principles Standards and Practices 11 (Feb. 2000); www.iaisweb.org.

[150]Thomas Warkne, Reinsurance Collections: The Primary Companies Challenge in Law and Practice of International Reinsurance Collections and Insolvency 36, (June 11-12 1988). See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

[151] Joseph J. Norton , Financial Sector Law Reform in Emerging Economies 26, (2000) See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

[152] Michael Pickel, Panel on Reinsurance Regulation: The Importance of Global Regulation of Reinsurers Seen from the Point of View of a German Reinsurers in the Seventh Annual Conference of the IAIS 03/10/2000; See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

If strict regulation is imposed on reinsurers, this would prevent reinsurers from performing core functions and threaten the economic benefits associated with reinsurance. Emphasis has to be laid on the quality of reinsurance with respect to the financial solvency of reinsurers and the reinsurance contracts with primary insurers. An ideal regulation would ensure that reinsurers are licensed and subject to prudential regulation in their origin country with regulators promoting cooperation among countries to gather sufficient information about reinsurers.

In the actual act of regulating reinsurance regulators need to consider two approaches: 1.Accounting approach: In this approach there is evaluation of receivables deposit of the reinsurer's part of the liabilities. 2. Solvency Approach: In this approach the regulator takes into account only a limited part of the ceded business to reduce the required margin or required free capital in a proportion of reinsurance receivables. Furthermore the assessment of reinsurers is based on following parameters: 1. Gross and net premiums 2. Incurred losses (gross and net) 3. Operation expenses 4. Investment of income.[153]In all this in terms of making such calculations, it needs to realized that for reinsurers the experience of the underwriter and managing operational risk are key components. The relationship between reinsurers and primary insurers is based on utmost good faith but issues arise when losses beyond expectation where the experience of underwriter matters.

Reinsurers encounter losses where there is no pattern of past settlement to calculate as appropriate amount of loss provisions. Here **mathematical computation and statistical analysis of claims data enmeshed with element of judgment in decision provided by an underwriter assists a reinsurer immensely**. The use of financial derivatives as a management instrument may prove useful and effective. In emerging economies regulators don't have adequate expertise to evaluate the foreign reinsurers so role of rating agency becomes important. For solvency requirements the essential component is a risk based capital[154] which based on the company's risk profile. Risk based capital models[155] have been

[153] With regard to premiums and losses it should obtain the information regarding the main classes of covered risks; and at least for general liability transport and catastrophic risks This data should enable the calculation of combined ratio (losses plus expenses divided by premiums), loss ratio, expense ratio, operation ratio (losses plus expense minus investment income divided by premiums) and retention ratio. Its considered as the security of retrocession. See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

[154] It has been summarized that the fixed ration basis may have the following shortcomings: 1. inadequate response to different risk profiles of individual insurers such as underwriting risk, and investment risk 2. To the extent exposure is based on historical data there is no explicit dynamic forward looking basis for the approach 3. A general model may be vulnerable to the choice of exposure basis and respond illogically e.g. by increasing

developed to assess risk elements and to determine the solvency of a reinsurer.

Among emerging economies **Mexico** has a new regulatory regime concerning reinsurance that was enacted by the National Insurance and Survey Commission (here in after **CNSF**) in 1969. This regulatory regime has the following aspects: 1. To establish a specialized reinsurance surveillance scheme within the CNSF; 2.To support specialized inspection activities; 3.To establish a legal framework to regulate the maximum retention limits; 4. To establish a technical reserve for domestic companies considering the reinsurers quality; and 5. To impact the solvency margin of ceding companies in the case of use of a low quality reinsurer for foreign reinsurers to modify the registration basis in order to have an updated situation of their claim pay ability. In the event of non registered reinsurers a Special Reinsurers Quality Technical Reserve[156] is required to reduce the credit risk arising from reinsurers.

The **German** system of reinsurance regulation focuses on the ceding insurers rather than the direct regulation of the reinsurers.

In **Australia** reinsurance policies of a primary insurer have to be approved by the insurance regulator the Australia Prudential Regulation Authority (herein after APRA). The insolvency laws and contract laws, which vary from country to country, might affect the validity of this endorsement for e.g. U.S. courts have upheld cut-through endorsements in certain circumstances[157] while under English Law[158] the cut-through clause is contrary to public

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requirements in response to stronger premiums or safer technical provisions and decreasing requirements with rebates on premiums or with weaker reserving. See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

[155] Risk Based Capital (RBC) for Insurers Model Laws Regulations and Guidelines: Company Organizations Management Securities Vol. II 2C at 312 -3-4 (July 2001).See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

[156] In this approach this special technical reserve is considered part of the technical reserve investment basis in a regulated investment regime. The calculation methods for this approach are described as follows:
Rtcr= Special Reinsurance Quality Technical Reserve.
Pc = Premium Ceded to Non-registered Reinsurer
Prrc= Retained Premium Ceded to a Non-registered Reinsurer
Cnp = Non proportional Reinsurance Cost paid to a Non registered Reinsurer
= Total number of Non-registered Reinsurers which the Insurance Company worked with.

[157]*Klockner Staler Hurter, Ltd vs. Ins. Co. of Pennsylvania, 785 F. Supp. 1130 (S.D.N.Y. 1990).*

[158]*British Eagle International Airlines Limited vs. Compagnie Nationale*, 1WLR 758 (1975) See also: Peter Sharp Cut-Through clauses (Dec.12, 2001) Available at: www.leg-uk.org See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431.*

policy. Good Corporate Governance[159] is critical for control of the risks which a financial institution.

The primary insurer needs to not only assess the financial solvency of the reinsurers, but also draft the reinsurance contracts carefully. It's difficult for insurance regulators in an emerging market to reach a balance between the security of reinsurance and the availability of reinsurance. For the primary insurers who also carry on reinsurance business the sector separation should be applied because of the difference of risk characteristics and inadequacy of expertise.[160]

The need of the hour; is the framework of regulation of reinsurance should be properly structured and take into account market characteristics and legal systems. The foreign reinsurers should be subject to the domiciled countries regulation. The regulators in an emerging market may choose a less restrictive regulatory approach to reduce the financial impact on solvency of primary insurers.

3.12 Conclusion: Regulations are meant to correct market failures of competitive markets and ensure a level playing field. However, in emerging economies the reluctance of the government to divest its control over the important sectors coupled with an inability to provide desired results has deleterious effects.

Risk, I find, is much too complicated to be solely the province of experts. The need of hour is participatory process in decision making process. The direction risk regulation is moving towards is playing a larger role in shaping public policy. This turn will also contribute new domains of knowledge on risk and regulation of risks.

Radical economic and financial reforms in the emerging economies tend to be made one the premise of fiscal needs. They tend not to be done with the purpose of structural reforms.

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[159] Norbert Seiler, "Implementation of International Standards: The EBRD's Approach to Strengthening Good Corporate Governance," In the Reform of the International Financial Architecture Pg. 327-328 In Rosa M. Lastra Ed. 2001. See also: Stephen R. Diacon & Noel O'Sullivan, "*Does Corporate Governance Influence Performance? Some Evidence from UK Insurance Companies,"* 15.International Review Law & Economics Pg. 405, 407 (Dec. 1995).

[160] The absence of sector separation for professional reinsurers doesn't represent a significant impact on the insurance market. First, life reinsurance business which is readily calculable risk and relative stable may enhance the diversification of risks accepted by professional reinsurers. Second, the failure of reinsurers may not directly affect the policy holders. Third, the sector separation may impede the diversification of risk, and restrict a sufficient volume of business from another sector. However, it should be noted that the failure of reinsurers may consequently affect the financial stability of primary insurers and hence the interests of the policyholders. See also: Wallace Wang, "*Developing Reinsurance Markets in Emerging Economies: Regulatory Implications and Challenges*," *Vol. 8, Law and Business Review Americas, 2002, Pg. 395- 431*.

Therefore, the regulatory institutions are unable to perform at an optimum level. This creates the gulf between their social purpose and the outcomes they create.

The framework of regulation of reinsurance should be properly structured and take into account market characteristics and legal systems. Its structure needs be framed around enhancing cooperation among regulators in different jurisdictions.

We have to understand that there is no single market structure and regulatory system that is best for all economies or legal jurisdictions. The main goal of the financial regulation is to minimize the systemic risk and harmonize the regulations across jurisdictions.

Chapter 4

Reinsurance

4.1 Introduction

4.2 Origin, Definition and Types of Re-insurance

4.3 The Re-insurance Contract, its Construction & Terms

4.4 Legal Principles in the Re-insurance Contract

4.5 International Applicable Law and Jurisdictional Issues

4.6 Re-insurance in the Emerging Markets

4.7 Risk, Re-insurance and Alternative Risk Transfer

4.8 Critical Comments on Reinsurance

4.9 Conclusion

Chapter 4

Reinsurance

4.1 Introduction: Reinsurance is a mechanism used by the insurance industry to spread risks[161]that it assumes from policy-holders. With reinsurance, insurers would be able to cover only the safest of ventures. The origin of reinsurance is somewhat ambiguous in the literature. The professional reinsurers emerged in the nineteenth century. Reinsurance is a form of insurance. English Law is very much settled in the application of the reinsurance treaties. Initially there were certain intricacies in the application of insurance and reinsurance treaties but with the passage of time English Court through case laws have clarified on the fixation of reinsurance liability. Drafting of the contract is one major grey area when risk is assumed by underwriter in reinsurance. Trust is one of the important factors in this industry. If law is stable the issues are settled amicably. Uncertainty is associated with future and it is defined as risk. Alternative risk transfer is combination of risk management with innovative insurance product for capital market. Insurance companies in emerging economies have issues with premium rating and protection against risk.

Reinsurance helps in absorption of financial losses which insurance company assumed from policy holders. Without reinsurance insurers would be able to cover only the safest of ventures. Emerging economies have created immense opportunities for western investors. Access to commercially promising emerging economies such as BRIC countries is restricted by regulatory authorities.

With respect to regulation of reinsurers, it is difficult to decide upon an appropriate regulatory structure to enable domestic insurers to benefit from the liberalization of reinsurance, without endangering the recoverability of reinsurance.

Regulators have to find a fine balance between liberalization of reinsurance and financial security of reinsurance without hampering domestic insurers.

The direct supervision of reinsurers could impose the entry requirements on reinsurers, who intend to carry on reinsurance business in the domestic market; it may also impede the liberalization of reinsurance transactions and increase transaction costs.

[161] Donald A. Mclsaac and David F. Babbel, "The World Bank Primer on Reinsurance," *Policy Research Working Paper, No. 1512, The World Bank, Financial Sector Development Department, September, 1995, Pg. 02.*

The reinsurance market resilience is a concern for the insurance sector. The incorporating several lines of risk will refine the reinsurance demand model. A better calibration would allow a better understanding of the market features that influence the market resilience[162].

I address the following: Why there is financial capacity shortage of global reinsurance industry? Why there is need alternative transfer of risk? How the use of capital markets enhances this financial capacity? Will the global financial regulation of insurance companies provide level playing field across jurisdiction? What is the difference between reinsurance theory and its application on industry? Does the web of laws impinge insurance industry? Will minimum regulation and maximum supervision help the emerging economies? Will effective risk based capital and insolvency norms help industry? What are strength and weakness of risk management mechanism?

4.2 Origin, Definition and Types of Reinsurance:

4.2.1 Origins of Reinsurance: The origins of insurance, and so of reinsurance, remains a mystery despite the efforts of considerable historical scholarship[163]. Chinese merchants would distribute their goods between several vessels for journeys along the hazardous rivers of China[164]. The earliest recorded reinsurance arrangement appears to have been affected in the fourteenth century when an underwriter reinsured the hazardous part of a marine voyage from Genoa to Sluys[165]. Professional reinsures, however, did not emerge until the nineteenth century. The first of these was the *Cologne Reinsurance Company*, which was formed in 1846 after a catastrophic fire in Hamburg had led to losses well beyond the reserves of the insures the Hamburg Fire Fund[166]. The first reinsurance contract in fire insurance business

[162] Sabine Lemoyne de Forges, Ruben Bibas and Stephane Hallegatte, " A Dynamic Model of Extreme Risk Coverage: Resilience and Efficiency in the Global Reinsurance Market, Policy Research, *Working Paper, No. 5807, The World Bank Sustainable Development Network, Office of the Chief Economist September, 2011,Pg. 05*. See also: Unpublished Research Paper Submitted to Walden University on 2013/08/05.
[163] Reinsurance, 1983.
[164] David L. Bickelhaupt, "General Insurance", 9th Ed. Homewood, III: Richard D. Irwin Inc, 1974, Pg.62. See also: Carter R.L. "Reinsurance," Second Edition, Springer-Science & Business Media, B.V. 1983, Ch. 01, Role and Development, Pg. 10.
[165] According to C.E. Golding, 'The Law and Practice of Reinsurance', 5th Edition, London: Witherby & Co. Ltd, 1987.
[166] Cologne Reinsurance Company was followed relatively swiftly by the formation of Swiss Re in 1863 and Munich Re in 1880.

was concluded in 1821.[167] In Switzerland, the first company to be formed was the Swiss Reinsurance Company, which started business in 1863. The Munich Reinsurance Company was founded in 1880. During the two world wars the London became the leading reinsurance market in the world[168]. Lloyds's today provide unparallel technical expertise and market capacity to the world. The traditional reason for insurance companies to buy reinsurance has been to improve their financial security and more specially to reduce their underwriting risks. Large claims in recent years have caused insolvencies and threaten the continued vitality of several old well established companies in both insurance and re-insurance markets.

4.2.2 Basic Terms in Reinsurance: The basic concepts and terminology which is used in Reinsurance business are following: 1. *Cede:* to give; 2. *Cedant:* the giver of reinsurance; 3. *Cession:* What is given; the quantity of insurance ceded to reinsurer is called the cession[169]. 4. *Bordereaux:* (Premium or loss), a detailed breakdown, risk by risk of premium or loss supporting the entries within a quarterly account; and 5. *"Cedant cedes a cession"* or "reinsured gives reinsurance". 6. Retrocessions are reinsurance purchased by reinsurers is known Retrocessions.

4.2.3 Types of Reinsurance: Reinsurance is essentially a contract under which an insurer agrees to pass a defined part of an insurance risk to a reinsurer. The distinction between the two main types of reinsurance is 1.Proportional; and 2. Non-proportional; All traditional reinsurance agreements were proportional basis. There are two types of proportional reinsurance: 1. Quota share and 2. Surplus share; *Quota share* agreement is type of proportional reinsurance that indemnifies the ceding company for a specified percentage of loss on each risk covered in the agreement, in return for receipt of a similar percentage of net premium paid to the ceding company. While *surplus share* agreement, a ceding company decides what level of liability it wishes to retain on a given risk and then reinsures multiples of that level through reinsurer.

Non proportional type of reinsurance contracts were commercially used only after the World War II. Advantage of non-proportional reinsurance is the saving in administrative time and

[167] A.S. Chaubal, "The Reinsurance", IC-85, Revised Edn. 2002, Insurance Institute of India, Mumbai, Chapter-01. Pg. 03. See also: Carter R.L. "Reinsurance," Second Edition, Springer-Science & Business Media, B.V. 1983, Ch. 01, Role and Development, Pg. 10.

[168] See also: Unpublished Research Paper Submitted to Queen Mary and W-estfield College on 2016/07/31.

[169] http://www.worldbank.org.

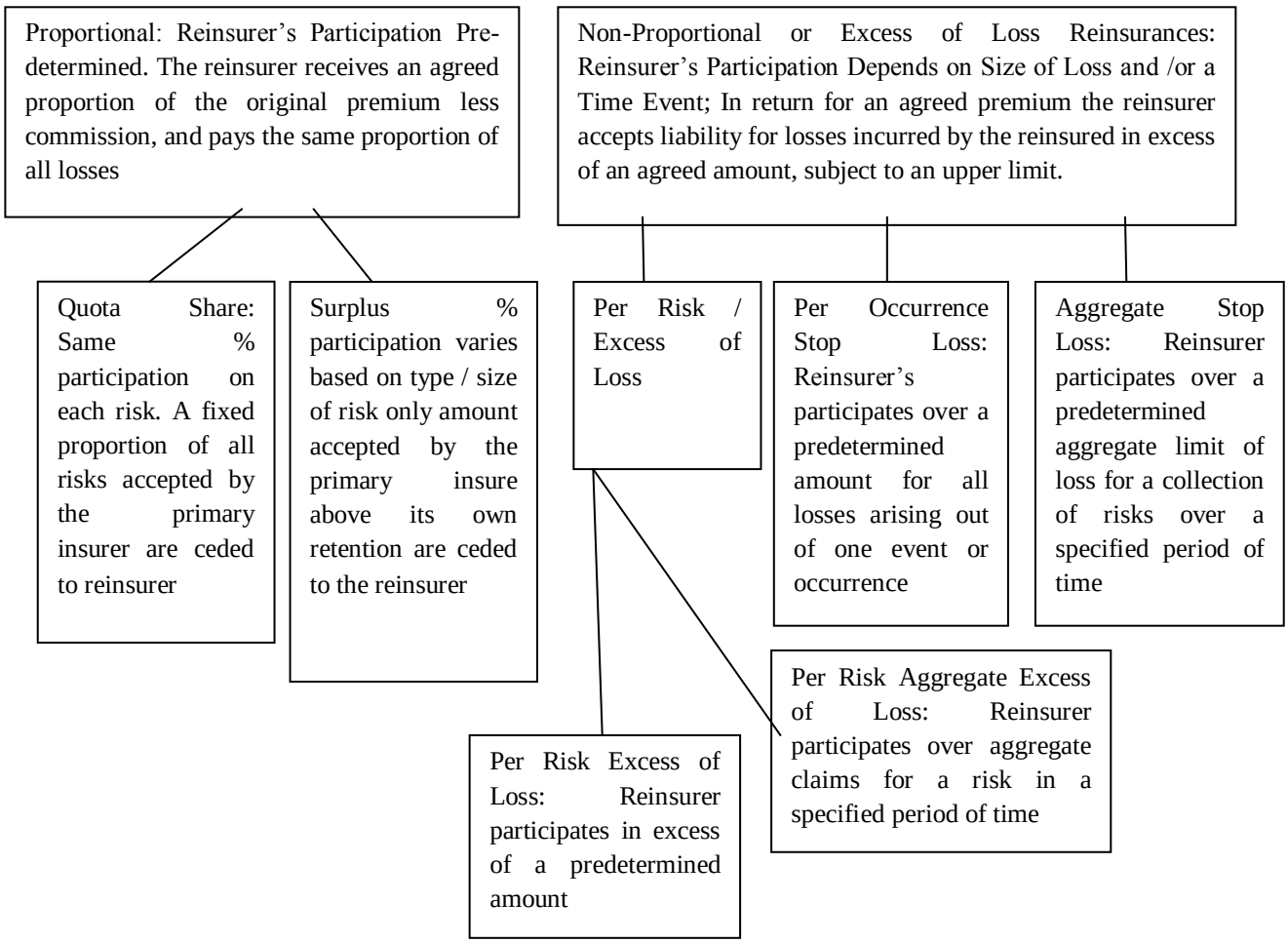
also expense. In non-proportional the reinsurer reinsures a layer (or part of a layer) of the liability of the insurer on a single risk or a number of risks. In excess of loss reinsurance the reinsurer agrees to indemnify the reinsured for losses within a particular class which exceed an agreed minimum figure and then only for the amount of such loss above the minimum figure.[170] Reinsurance of an insurer who is answerable only when a loss exceeds a substantial deductible is not exceeds of loss reinsurance.[171]

Non proportional again are of two types: 1. *excess of loss contracts*, and 2. *stop loss contracts*. *Excess of loss contracts* require the ceding company to pay all losses associated with an insurance claims up to some maximum amount. Excess of loss contracts are sometimes purchased in layers. *Stop loss contracts* are similar to excess of loss contracts, except that stop loss contracts apply to a portfolio of insurance contracts. This kind of contract is simple to administer and in some sense better meets the needs of most insurers, because it is total of all losses that is typically of greater concern, not the loss payments under a single contracts. Using this part of their reinsurance package, it protects itself against the probability of a single very large claim. **It is being used in most of the emerging economies.** Reinsurance contracts that involve some combinations of proportional and non-proportional reinsurance are known as Hybrid contracts. The below figure is tentative depiction.

[170] *Balfour vs. Beaumont (1982) 2 Lloyds Rep. 492, 496.* This has been explained in this particular case as: Take an insurer entering into a contract of insurance providing for £1,000,000 of cover in the event of fire damage to a factory. The insurer enters into a contract of reinsurance with reinsurer A for 100 % of its liability in excess of £ 250,000 but up to a liability of the insurer of £ 500,000 (i.e. £ 250,000 in excess of £ 250,000) and a contract of reinsurance with reinsurer B for 100% of the liability in excess of £500,000 up to £ 1,000,000 (i.e. £500,000 in excess of £500,000). Both reinsurers have reinsured a layer of the risk. If a fire take place causing £200,000 of damage to the factory, neither reinsurer will be called upon to pay any part of the loss. If the loss caused by the fire is £450,000, the insurer will be liable for the first £250,000 but A's layer of cover will also be caught and reinsurer. A will therefore be liable for £200,000 (i.e. that part of the damage in excess of £250,000). For e.g. If, the loss caused by the fire, is, about £1,000,000 (or more), the reinsurer A will be liable for, £250,000 and reinsurer B liable for £500,000.

[171] *Irish National Ins. Co. Ltd vs. Oman Ins. Co. Ltd. (1983) 2 Lloyds Rep. 453, 461.* Where the presence of a large deductible did not convert a first loss fire policy into an excess of loss insurance. A first loss insurance is one where the sum insured is less than the full value of the interest at risk. In Sphere *Drake vs Denby (1995) L.R.L.R 1* the terms of an oral contract for unlimited excess of loss reinsurance were held to be too uncertain to be enforced.

Figure of type of Reinsurance[172]:



4.3 The Re-insurance Contract, its Construction & Terms:

4.3.1 Role of Insurance in Development of Re-insurance: Insurance is a contractual arrangement whereby one party agrees to compensate another party for losses. In its financial sense insurance is a financial arrangement that redistributes the cost of unexpected losses.[173] The Hindu Philosophy[174] gives the axiomatic truth "*Yat bhavathi tat nasyathii"* which means that whatever is created will be destroyed.

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[172] Donald A. Mclsaac and David F. Babbel," The World Bank Primer on Reinsurance," *Policy Research Working Paper, No 1512, The World Bank, Financial Sector Development Department, September, 1995, Pg. 2.* See also Adapted from a chart by Ronald E. Ferguson, " Bases of Reinsurance"

[173] Mark.S.Dorfman, Introduction to Insurance; New Jersey; Prentice Hall Inc. 1982, Pg.4

[174] Prof. K.S.N. Murthy and K.V.S Sarma, *Modern Law of Insurance In India*, Third Ed. 1995, N.M. Tripathi Private Limited, Bombay, Chapter .1, Pg. 2-3.

Reinsurance is a form of insurance. Many of the principles and practices applying to the conduct of insurance business equally apply to reinsurance. Reinsurance has been defined as "*.... a contract whereby one for a consideration agrees to indemnify another wholly or partially against loss or liability by reason of a risk the latter has assumed under a separate and distinct contract as insurer of a third party.....*"[175]

4.3.2 Difference between the Insurance and Re-insurance Contract: A reinsurance contract constitutes a separate contract of insurance between the reinsurer and the reinsured; it is not an assignment of all or any part of the rights and liabilities already existing under a contract of direct insurance. The parties to a reinsurance contract are the reinsurer and insurer,[176] 'passing to another part of a risk or liabilities accepted.'[177]

4.3.3 Does the original assured have any interest in Re-insurance? An original insured has no interest in any reinsurance that his Insurer makes with another. Both the contracts are distinct and separate. Ceding company is entirely liable to the original insurance and it alone has been against the accepting company. But if the policy otherwise provides latter may become liable to the original insurance[178].

However, a reinsurer can claim the benefit of any compromise made with the original assured even if he has expressed his disagreement to it[179].

Where a question arises as to whether an insurer has power to make contracts of reinsurance the answer would depend on the **whether he has power to make Contracts of Insurance, in relation to the same subject, matter**[180].

4.3.4 Is Re-insurance a Contract of Insurance? English law is far less certain in the case of reinsurance treaties. U.K. Court says: '*The terms on which the parties are contracting must*

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[175] *Stickel vs. Excess Insurance Co. of America, 136 Ohio St. 49, 23 N.E. 2d 839 (1939).* http://www.guycarp.com.

[176] *Case of Iowa Mutual Tornado Insurance association vs. Timmons, 105; N.W. 2d 209: 'The true reinsurer is merely an insurance company or underwriter which deals only with other insurance companies as its policy holders.'* Reinsurance, 1983.

[177] Carter R.L.,*'Reinsurance,' Second Edition, Springer-Science & Business Media, B.V. 1983, Ch. 01, Role and Development, Pg. 03.* See also: *W.A. Dinsdale, Specimen Insurance Forms and Glossaries, 2nd Eds., Pg. 142, Stone & Cox, 1963.* See also: C.E. Golding, "The Law and Practice of Reinsurance", 5th Ed., London: Witherby & Co. Ltd, Edition Amended 1968; 1965. Reinsurance, 1983.

[178] *Law Guarantee Trust vs. Accident Guarantee Ltd. (1915) FT, 340.*

[179] *British Insurance Comp. vs. Duder (1915)2, KB 394. See also:* Unpublished Research Paper Submitted to Massey University on 2014/04/26.

[180] *Forsikring vs. Attorney General (1925), AC, 639. See also:* Reinsurance, 1983.

be complete and reasonably certain in order for a contract to exist[181]*'*. U.K. Court for insurance regulations has made it clear that: '*Direct insurer is treated as, an insurance of the same class, as the direct business reinsured*'.[182] Although the courts have held that the subject matter of insurance is identical under both an original insurance and its associated re-insurance however the distinction were expressed as follows: "… *a policy of reinsurance is a policy of interest in the subject matter of the insurance, that interest being different from that protected by the original policy and acquired by the fact the assured is the underwriter under the original policy.*[183]*"*

Similarly the U.S. Court has held: "*A Reinsurance treaty is merely an agreement between two insurance companies, whereby one agrees to cede and other to accept reinsurance business pursuant to the provisions specified in the treaty. Reinsurance treaties and reinsurance policies are not synonymous: reinsurance treaties are contracts for insurance, and reinsurance policies or cessions are contracts of insurance"*[184].

4.4 Legal Principles in the Re-insurance Contract:

4.4.1 Legal interpretation applicable to the Insurance and Re-Insurance Contract: Reinsurance is a contract whereby one party, known as the reinsurer, undertakes to indemnify the other party for liabilities he may incur under a contract of insurance[185].

Lord Mansfield of the English Court has held that: "*A new assurance, affected by a new policy, on the same risk which was before insured in order to indemnify the underwriters from the previous subscriptions; and both policies are in existence at the same time*."[186]

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[181] *Frota Oceania Brasiliena vs. Steamship Mutual Underwriting Association (1996) 2 Lloyds Rep.461. See also:* Reinsurance, 1983.
[182] *Glasgow Assurance Corporation (Liquidators) vs. Welsh Insurance Corporation (1914) S.C 320 & Forsikringskabet National (of Copenhagen) vs. Attorney General (1929) 93 LJKB 679 and (1925) A.C 639. See also:* Reinsurance, 1983.
[183] Quoted by Scrutton LJ in *Forsikringskabet National (of Copenhagen) vs. Attorney General (1929) 93 L.J.K.B 679 and (1925) A.C 639.*
[184] *Pioneer Life Ins. Co. Alliance Life Ins. Co. 30 N.E. 2d 66 III 576.*
[185] Reinsurance, 1983. See also: Unpublished Research Paper Submitted to University of Southampton on 2013/09/12.
[186] *Delver vs Barnes (1807) 1 Taunt. 48,51.*

Similarly the U.S Court also has construed a contract of reinsurance as: "*A Contract whereby one for a consideration agrees to indemnify another wholly or partially against loss or liability by a risk the latter has assumed under a separate and distinct contract as insurer of a third party.*"[187] It was also held that: "*risks covered by a reinsurance contract may be in a narrower or even wider form than those assumed by the reinsured under the original insurance*".[188] Going a step further U.S. Court has also clarified the about the extent of reinsurer's liability:[189] "*While a contract of reinsurance implies the same subject matter of insurance as the original policy, and runs against perils of the same kind, it need not be for the identical hazard insured against in the first policy, but may be for a less, though not for a greater risk."*

4.4.2 Construction of Reinsurance Contract: Commercial Contract and its Conflict with Legal Dimension:

The purposive approach is particularly evident in the courts approach to the construction of reinsurance contracts[190]. The reason behind this is that reinsurance **contracts are often drafted so briefly that their terms are neither clear nor complete**. This also has led the courts to criticize their drafting on numerous occasions[191]. The reason behind this when the contract of reinsurance are being written the business realities i.e. the transfer of risk factor is in mind of the contract writer and **literal meaning of words and judicial interpretations are overlooked. The issue arises when court have to interpret to settle the litigation.**

There is a need for caution in doing so as it involves litigation. But from the reinsurance context there may be several parties to the reinsurance slip who become bound by its terms

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[187] *Stickel vs. Excess Insurance Company of America, Ohio Supreme Court, 22 November 1939, 23 N.E. (2nd) 839, 136 Ohio St. 49.*

[188] *Traders and General vs. Bankers &General Insurance (1921), 38 T.L.R.94*

[189] *London Assurance Corporation vs. Thompson, 170 N.Y. 94.*

[190] The parties may also expressly provide that a reinsurance contract should be construed in a way which gives to the business realities rather than to the literal meaning of the words used where these conflict, often referred to as an '*honorable engagement clause'*. See also: *American Centennial Insurance Co. vs. INSCO Ltd. L.R.L.R 407.* It is noteworthy that in that case Moore Bick J. stated that even in the absence of such a clause he would need little persuading to adopt that course stating that it reflected the modern approach to the construction of commercial documents of all kinds.

[191] *In Forsikringasakieselskaper Vesta vs. JNE Butcher (1989) AC 852* ***Lord Templeman*** *refused to follow a trail of' insurance jargon in a reinsurance policy and incorporated documents littered with language which is un-grammatical and contradictory'* ***Lord Griffiths*** *described the policy as obscure. Axa Reinsurance (UK) plc Field (1996) 1 WLR 1026* ***Lord Mustil*** *suggested that until disasters emerged in relation to asbestos and pollution damage in the 1980's and 1990's litigation under reinsurance contracts had been very rare and in the absence of rigorous exposure to scrutiny in the courts the wording of reinsurance contracts had been allowed to be 'more lax than was healthy'. See also:* Mendelowitz, Michael. "REINSURANCE ROUND-UP 2010", Journal of the Australian & New Zealand Institute of Insurance & Finance, 2011.

on separate occasions and following separate negotiations; the best evidence of what a reinsurer intended to write may well therefore be what he did write.[192]

There is conflict of business interest and litigation.

In absence of the *Insurable Interest* all policies of insurance are void[193]. Insurable interest is a financial or lawful interest.

The Principle of Utmost Good Faith is also known as *Principle of Uberrimae fides*[194]. It means that at the time of entering into contract of insurance both the parties should disclose all the material facts, and circumstances, to each other. There should be no concealment of material facts, and circumstances, which may have effect on the fixing of premium, and settling other terms and conditions. What is a material fact or material circumstances relating to a particular contract of insurance is a question of fact to be decided by the Court. Material

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[192] *Rix LJ in HIH Casualty & General Insurance Ltd. New Hampshire Insurance Co. (2001) Lloyds Rep. IR 596 ,606.*

[193] '**There is nothing in the common law of England which prohibits insurance, even if no interest exists'**. *Williams vs. Baltic (1924) 2 K.B. 282, 282.* However, statute law renders illegal and void most insurance where the insured has no interest at the time of taking out a policy. But, in life insurance the interest "must subsist at the time the policy is affected, though not necessarily at the time a claim is made". See also: Carter, R. L. "Legal principles applying to Reinsurance Contracts", Reinsurance, 1983. See also: Life Assurance Act 1774; *Dalby vs. India and London Life Assurance Co. (1854), 15, C.B. 365.* See also: Mc Cardie J. in Norwich Union Fire Insurance Society vs. Colonial Mutual Fire Insurance Co. (1922) 2 K.B. 461, 461. Where he said "… *The thing which the reassured insures is the thing originally insured. In this thing he has an insurable interest to the extent of the liability which he may incur under and by reason of his original contract of insurance.*"

[194] Lord Blackburn '*Reinsurance contracts, like other forms of insurance, are subject to the principle uberrimae fidei of utmost good faith*' *in Brownlie vs. Campell (1880), 5 App. Cas. 925,954.* Lord Mansfield said: "*Good faith forbids either party by concealing what he privately knows, to draw the other into a bargain, from his ignorance of that fact, and his believing the contrary… The policy would be equally void, against the underwriters; if he concealed; as if he insured a ship on her voyage which he privately knew to be arrived; and an action would be to recover the premium*" in *Carter vs. Boehm (1766), 3 Burr. 1905, Pg.1909.* Farwell LJ said "*Contracts of insurance are contracts in which uberrimae fides is required, not only from the assured, but also from the company assuring.* In *Re Bradley and Essex and Suffolk Accident Indemnity Society. (1912)*, 1, K.B. 415. C.A. Scrutton LJ explained in *Rozanes vs. Bowen (1928) 32L1,L.R. 98* "*It is the duty of the assured, the man who desired to have a policy, to make full disclosure to the underwriters without being asked of all the material circumstances, because the underwriters know nothing and the assured knows everything."* **Application to re-insurance:** Both the parties can be assumed to be experts, equally knowledgeable about the business they are transacting. See also: *Ionides vs. Pender (1874), L.R 9 Q.B 531.* An American decision on the same point was *New York B.F Insurance Co. vs. New York Fire Insurance Co., 17 Wend 359.* "The latter may not be bound to disclose anything about his character which may adversely affect the risk; the ceding company must disclose to the reinsurer all that it knows about its insured." See also: Unpublished Research paper Submitted to University of Southampton on 2015/08/26. According to C.E. Golding, '*The Law and Practice of Reinsurance', 5th Edition, London: Witherby & Co. Ltd, 1987*. He said: "*The foundation of reinsurance is: (1) Full information, so far as possessed by the ceding company as to the risk on which on which the reinsurance is required. (2) Full information as to the amount retained by the ceding company on the identical property on which the reinsurance is requested.* See also: ***London General Insurance Co. vs. General Marine Underwriters Association (1921) 1 K.B. 104….*** "*A ceding company will be held to have knowledge of those facts which in the ordinary course of its business it ought to know*". See also: Unpublished Research Paper Submitted to Massey University on 2014/04/26.

facts are those facts which influence a reasonable person whether and upon what terms the insurer would accept the risk.[195]

Principle of Warranties is promises made by insured to the insurer, which are to be complied with. There non-compliance may result the contract of insurance as void. Both parties are liable to comply with express or implied terms and conditions inserted in the insurance policy.

The *Principle of Indemnity* provides relief against any loss or damage[196]. This principle makes the insured entitled to be compensated against the actual loss suffered by him.

The *Principle of Subrogation* means that when insurer indemnifies the insured, then he occupies the position of insured relating to the rights against third parties. This principle applies where an insured gets insurance of the same thing from two or more insurers.

There is conflict of business interest and litigation. Contract of Reinsurance is simply based on slip. Financial interest becomes bound by its terms of the slip. Therefore courts find it difficult to interpret in literal meanings of the word.

This process is extremely technical as it involves the selection of events of loss. **With the help of mathematical calculation and statistical analysis using probability;** it needs to find solution to loss bearing exposure. However **human experience** is still required for analyzing and finding solution. Role of the underwriter becomes very important as he deals with the slip. He is the person who assumes risk for the first time on the basis of experience.

After the survey of literature I found there is no general statutory definition of re-insurance in the majority of the jurisdiction.

The **English authorities do not** provide a satisfactory definition of reinsurance, and the evolution of reinsurance in its various forms has made it difficult to achieve a comprehensive

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[195] *Galle Gowins vs. Licences & General Insurance Co. Ltd. (1933).*

[196] "*All reinsurance contracts are contracts of indemnity, the general principle being that the liability of the reinsurer is restricted to the actual loss which the ceding company has suffered, subject to the limit of the contract of reinsurance*". American law follows the same principle: *Hone vs. Mutual Safety Insurance Co , 3 N.Y. Super 137, affd., 2 N.Y. 235.* " *A ceding company must be able to prove that the loss for which it claims an indemnity from its reinsurer(s) falls within the terms of the reinsurance contract , and that it was itself liable to pay the loss" See also: St Paul Fire & Marine Company Vs. Morice (1906), 22 T.L.R . 449 and See also: Merchants Marine Insurance Co. vs. Liverpool Marine & General Insurance Co. (1928), 44 T.L.R 512. In Western Assurance Company of Toronto vs. Poole (1903) K.B. 376. Bigham J. "the reinsurer could only be liable for losses for which the primary insurer was liable under the original insurance and which fell within the terms of the reinsurance contract but added: so long as liability exists the mere fact of some honest mistake having occurred in fixing the amount of it will afford (the reinsurer) no excuse for not paying."*

definition[197]. The reinsurance is a separate contract from the original insurance,[198]so that there is no privity of contract between the insured and the reinsurer[199].

It is essentially an independent contract of insurance whereby the reinsurer engages to indemnify the reinsured wholly or partially against losses for which the latter is liable to the insured under the primary contract of insurance.[200]

In **Israel Reinsurance Contract** is a contract between an insurer and an insured which obliges insurer in consideration for a premium paid to pay insurance benefits to the insured on the occurrence of an insured event.[201]

Similarly **insurance and reinsurance are regulated by the individual states of the USA** and accordingly there is no federal definition of re-insurance. This increases the complexity of the issue. Each case has to be interpreted individually as per the circumstances.

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[197] *Toomey vs. Eagle Star (1994) 1 Lloyds Rep 516 at 522; Skandia International Corp. vs. NRG Victory Reins Ltd. (1998) Lloyds Rep. I.R 439 at 455; Travellers Casualty & Surety Co. vs. Commrs. of Customs & Excise (2006) Lloyds Rep. I.R 63,69; ERC Frankona Reinsurance vs. American National Is. Co. (2006) Lloyds Rep. I.R 157,190. (183).* **Lord Mansfield's** stated that: "*A reassurance is a contract of indemnity between the original and a collateral insurer, by which the first is indemnified by the latter from the risk he has undertaken in respect in respect of the subject insured.*" See also: *Andree Fletcher (1787) 2 T.R. 162 , 162-163* by Counsel for the defendant. Cf. the cynical definition in Park, Marine Ins. (8th Edn.) , Vol.2, Pg. 595 that " *Reassurance, as understood by the Law of England, may be said to be a contract, which the first insurer enters into , in order to relive himself from those risks which he has incautiously undertaken, by throwing them upon other underwriters who are called re-assurers.*" Perhaps the modern aggregate excess of loss policy comes close to this description of reinsurance. In *Delver vs. Barnes (1807) 1 Taunt. 48.* Lord Mansfield C.J held that a transaction between two underwriters, whereby one allowed the other to be substituted for him on marine cargo insurance at an increased premium entered in account between them, was not reinsurance. He said: " *This contract, although it much resembles , yet does not fully amount to a reassurance, which consists of a new assurance,, effected by a new policy on the same risk that was before insured, in order to indemnify the underwriters from their previous subscriptions: and both parties are in existence at the same time.*" "*The object of the reinsurance is to indemnify the reinsured against liability which may arise on the primary insurance*". See also: *South British Fire and Marine Ins. Co. of New Zealand vs. Da Costa (1906) 1 K.B. 456, 460. Per Bigham J: Wasa International Ins. Co. vs Lexington Ins. Co. (2008)1 All E.R. (Comm.) 1085. 1102 (48-49) per Sedley L.J.* See also: Woloniecki, Jan. "The A.R.T. of Reinsurance in Bermuda: Recent Legal Developments. (recent amendments to the Insurance ", Mondaq Business Briefing, April 28, 2003 Issue.

[198] *British Dominions General Ins. Co Ltd vs. Duder (1912) 2 K.B. 394, 400, 405.* The two contracts may be subject to different system of law. See also: *Citadel Ins. Co. vs. Atlantic Union Ins. Co. (1982), 2 Lloyds Rep 543.*; See also: *Forsikringsaktieselskapet Vesta Butcher (1989) A.C 852.*

[199] *Norwich Equitable Fire Ass., Re (1887) 3 T.L.R. 781; Law Guarantee Trust & Accident Soc., Re (1914) 2 Ch., 617, 647-48; English Ins. Co. National Benefit Ass., Co. (1929) A.C 114, 124.* See also: *Versicherugs und Transfort Ag. Dauga vs. Henderson (1934) 39 Com. Cas. 312, 316;* Since enforcement of Contractual rights by third parties has become possible under the Contracts (Rights of Third Parties) Act 1999 it may now be possible for the original assured to claim directly against his insurer's reinsurer under a "Cut through Clause" in a reinsurance subject to English law, but even so the clause may be invalid under the relevant under the insolvency regime.

[200] *Versiccherungs und Transport AG Daugava vs. Henderson (1934) 39 Com. Cas. 312,316. See also: Home Ins. Co. of New York vs. Victoria Montreal Fire Ins. Co. (1907) A.C. 59, 63.* However to indemnify in respect of liabilities assumed under contracts of insurance will not necessarily be a contract of reinsurance: *GMA vs. Store brand & Kans (1995) L.R.L.R 333. See also: Unpublished Research Paper* Submitted to University of Southampton on 2012/09/10.

[201] Article- 1, Israeli Insurance Contract Law- 1981.

In U.K. the earliest case[202] was a new assurance affected by a policy on the same risks which was before insured in order to indemnify the underwriters from their previous subscription and both policies are to be in existence at the same time[203]. Later cases in U.K. have emphasized different aspects of the definition e.g. by making it clear that a contract or re-insurance is a distinct obligation between reinsurer and reinsured which doesn't confer rights upon the direct policy holder[204]as re-insurance is not any form of partnership or agency[205].

A feature of re-insurance law is the remarkably small number of cases to come before the courts in the vast majority of jurisdictions I have surveyed.

The reason behind this is the use of arbitration clauses and other dispute resolution mechanism. It's only comparatively recently that the parties to re-insurance agreements have resorted to litigation when it spread to different jurisdiction.

In common law jurisdiction traditionally re-insurance had been something of a market for 'gentleman" in whom insurers regularly re-insurance each other and were happy to settle amicably.

4.4.3 Judicial Interpretation of types of Reinsurance through the Case Law: The word 'Facultative' is derived from Latin word 'facultative' this means 'optional'. It is a kind of 'optional reinsurance'.[206] If the insurer doesn't seek reinsurance, there is no obligation on the reinsurer to provide it[207]. The facultative reinsurance is being used to reinsure large risks[208]. The basic concept of facultative proportional reinsurance was summarized by Lord Griffiths in this particular case[209]: "…. *An insurer who has accepted a risk by issuing a policy of insurance goes to reinsurers to lay off part of that risk. Before the reinsurer accepts part of the reinsurer's risk, he will wish to assess the risk of himself. The reinsurer can only assess*

[202] *Delver vs. Barnes (1807) 1 Taunt, 48 at Pg.51.*
[203] See also: Unpublished Research Paper Submitted to University of Southampton on 2013/09/18.
[204] *Glasgow Assurance Corp. vs. Welsh Insurance Company, 1914, SC 320.*
[205] *English Insurance Company vs. National Benefit Ins. Comp. 1929 AC 114.*
[206] *Citadel Ins. Co vs. Atlantic Union Ins. Co. (1982) 2 Lloyds Rep 543, 545 (hull open cover);* See also: *Phoenis General Ins. Co. vs. Halvanon Ins. Co. (1985) 2 Lloyds Rep 599,602;* See also: *Aneco. Reins Underwriting vs. Johnson & Higgins Ltd. (2002) Lloyds Rep. I.R. 91,105 (70-71).* See also: Colin Edelman, QC, Burns, Andrew, Craig David, and Nawbatt Akash, *"The Law of Reinsurance", First Edition, London: Oxford University Press, 2004, Chapter 01: Functions, Definitions, and Types of Reinsurance, Pg. 08.*
[207] *Lincoln National Life Ins. Co. vs. State Tax Commission, 16 So. 2d. (1944, Miss.), 369.*
[208] In the insurance market, the problems posed by the placement of small facultative risks can be addressed by the broker arranging a line slip, which is an arrangement whereby the leading underwriter on the line slip has the autonomy to accept risks falling within its ambit on behalf of the entire following underwriter subscribing to the line slip. Such an arrangement can also be set up for facultative reinsurance business that a broker anticipates receiving. See also: *Brotherton vs. Aseguradora Colseguros, SA (2002) 1 Lloyds Rep IR 848.*
[209] *Forsikringsaktieselskapet Vest vs. JNE Butcher (1989) 1 AC 852, 893.*

the risk if he is shown the terms on which the insurer has accepted the risk in other words if the reinsurer is shown the policy that has been or is to be issued by the insurer. When the reinsurer has assessed the risk covered by the policy he can decide whether or not he will reinsure the risk .In the ordinary course of business reinsurance is referred to as 'back-to-back' with the insurance, which means that the reinsurer agrees that if the insurer is libel under the policy the reinsurer will accept liability to pay whatever percentage of the claim he has agreed to reinsure….."

'Treaty' essentially signifies a kind of 'deal'[210]. It means that once agreed gives cover for a range of risks, over a period of time. In the absence of contractual provisions to the contrary, cessions of risk to a treaty can occur without notice at the time of each cessions to the reinsurer[211]. It allows the reinsured to increase its capacity by means of an agreement under which the reinsurers and reinsured share premiums and losses in respect of which the reinsured acting alone could not have written.[212] In all kind of treaties agreement the insurer simply cedes a fixed proportion of the business falling within the scope of the treaty to the reinsurer.[213] By a quota share treaty[214], insurer and reinsurer are obliged to cede and accept a

[210] The reason for the words 'in principle' appearing above is because it may transpire that the insurer will not in fact have any business of particular type during the currency of the agreement and therefore will not cede any business of that type to the reinsurer. See also Colin Edelman, QC, Burns, Andrew, Craig David, and Nawbatt Akash, *"The Law of Reinsurance", First Edition, London: Oxford University Press, 2004, Chapter 01: Functions, Definitions, and Types of Reinsurance, pg 08. See also:* Ravi Prakash V year B.A.L.L.B (Hons.); HNLU, Raipur, India, The Reinsurance Law in India: Insuring the Insurer, *The CLC, Vol. I, No.1 (Dec., 2010), pp.32-42.*

[211] *Baker vs. Black Sea & Baltic General Ins. Co. (1995) L.RL.R. 261, 274;* affirmed on different grounds (1996) L.R.L.R 353 (C.A.); (1998) Lloyds Rep I.R. 327 (HL); In *The Beursgracht (No.1) (2001) 2 Lloyds Rep. 602* risks attached to the insurance prior to the making of a declaration. It was held that the declaration were essential contractual machinery in declaring, potentially retrospectively, what risks were being covered. It was subsequently held that the implied obligation to make a declaration within a reasonable time was an in-nominate term-*The Beursgracht (No.2) (2001) 2 Lloyds Rep. 608.* This reasoning was upheld by the *Court of Appeal: (2002) I Lloyds Rep 574.*

[212] *Bonner vs. Cox Dedicated Member Ltd. [2005] EWCA Civ. 1512*. See also: *Glencore International AG vs. Ryan, the Beursgracht [2002] Llyod's Rep. IR. 335.* See also: Ravi Prakash V year B.A.L.L.B (Hons); HNLU, Raipur, India, 'The Reinsurance Law in India: Insuring the Insurer', *The CLC, Vol. I, No.1 (Dec., 2010), pp.32-42*.

[213] *Great Atlantic Insurance Co. vs. Home Insurance Co. [1981] 2 Lloyd's Rep. 219. See also: Glencore International AG vs. Ryan, the Beursgracht [2002] Lloyds' Rep. IR. 335.* See also: Ravi Prakash V year B.A.L.L.B (Hons); HNLU, Raipur, India, 'The Reinsurance Law in India: Insuring the Insurer', *The CLC, Vol. I, No.1 (Dec. 2010), Pg.32-42.* See also: Unpublished Research Paper Submitted to University College London on 2012/09/01.

[214] *Forsikringsaktieselskabet National (of Copenhagen) vs. Attorney General (1925) AC 639*. The reinsurer agrees by a quota share to provide reinsurance to the insurer on all of its fire business in Scotland for the year 01 January to 31 December 1925 to the extent of 75% on each risk, and not to exceed £ 1,000,000 on each risk. The insurer issues 1,000 policies for fire insurance in Scotland that year for a premium of £ 1,000 each. The reinsurer will take £ 750,000 of the premium (subject to any commission payments). There are five fires upon which the insurance cover is called four fires cause losses of £100,000 and the fifth causes of loss of £ 1,500,000. The reinsured is liable to pay his 75% share of £ 75,000 for the first for fires, but only £ 750,000 for

fixed share and every risk within the scope of the treaty. By a surplus treaty, the reinsurer agrees to accept the liability above that which the insurer wishes to retain or itself.

Non-proportional reinsurance is based more on claims than risk. In a proportional treaty the reinsurer will be involved in every loss that is ceded under the treaty according to the pre-determined amount for which it has agreed to be liable. In excess of loss treaties, the reinsurer only becomes involved in a loss when it exceeds the insured's deductible. Stop loss reinsurance comes in two principle forms (although sometimes also an amalgamation of the two) namely excess of loss ratio and aggregate excess of loss. In excess of loss ratio reinsurance the reinsurer to provide insurance to the reinsured in excess of an agreed annual loss ratio based on the ratio of losses suffered by the insurer to the premiums received by it in a given year.

4.4.4 Judicial Interpretation of Content of Reinsurance Contract through Case Law: The formation of the reinsurance contract is occasionally difficult to analyze, but this will not deter a court from recognizing the creation of a contractual relationship where there is a clear intent to create legal relations and the transactions even when it's clearly of a commercial character[215]. Market practices may be relevant and have tradition but are open to analysis[216].

Reinsurance contracts are formed by a conventional offer and acceptance as in insurance. Here it's in form of correspondence. It's formed by the reinsurer initializing a slip presented to him by a broker acting for the reinsured.

Unless the slip is qualified,[217] and is expressly circulated to obtain a quotation,[218] and it contains the contract of reinsurance in the same way as the original insurance[219]. The reason behind the circulation is to get **endorsement of experience underwriter and risk involved.**

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the fifth fire having limited his liability to £ 1,000,000 for each risk. See also: See also Unpublished Research Paper Submitted to The WB National University of Juridical Sciences on 2013/11/28.

[215] *General Accident Fire and Life Ass. Corp. vs. Tanter (1984) 1 Lloyds Rep. 58, 71-72 per Hobhouse J.*

[216] A summary of the operation of the London Market is given in *Ins. Co. of the State Pennsylvania vs. Grand Union Ins. Co. (1990) 1 Lloyds Rep. 208 at 209-210.*

[217] E.g. by being initialed "W.P." *Eagle Star Ins. Co. Ltd. Vs. Spratt (1971) 2 Lloyds Rep. 116 124.*See also: *SAIL vs. Farex (1995) L.R.L.R. 116, 121* (penciled "subject to reinsurance" was a qualification of acceptance of acceptance , not a contractual term. *Lloyds Society of Lloyds vs. Morris (1993) Unreported. See also: Per. Hamilton J., Grover & Grover Ltd. Vs. Matthews (1910)2KB, 401; See also: Assicurazioi Generali SPA vs. Arab Insurance Group (2003) All ER (Comm.) 140. See also: The usual method in which interim is granted is by a cover note. See also: Re Yager & Guardian Assurance Co. (1912) 108, LT 38. See also: Citizens Insurance Co. of Careda vs. Parsons (1881) 7 App. Cas. 96 PC. See also: Mackie Vs. European Assurance Society (1869) 21 LT 102. See also: Per Hobhouse J., Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908, Also See: Baker vs. Black Sea & Baltic General Insurance Ltd. [1998] 2 ALL ER 8333. See also: Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908. See*

The slip stipulate for the production of a policy and its full wording. Sometimes it does not, and is then referred to as a reinsurance policy[220]. The slip in law is an offer put forward on behalf of the applicant by his broker. This is presented successively to underwriters for their acceptance. An underwriter's acceptance of the offer in the slip is marked by signing, or 'scratching' the slip and adding the percentage of the risk which **the underwriter is prepared or willing to accept**.

A slip contains the following information: 1. the broker's reference; 2. the type of risk to cover; 3. whether the policy form has endorsement from Lloyds Underwriters Non-Marine Association (NMA) etc; 4. the identities of the insured and reinsured; 5. the period of reinsurance; 6. the sums reinsured and limits, deductibles and the reinsured's retention; 7. the details about the premium, commission and brokerage: 8. any reinsurance clause or special reinsurance terms and conditions such as a follow settlements clause or terms relating to

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also: GE Reinsurance Corp. vs. New Hampshire Insurance Co. [2004] Lloyd's Rep.IR 404. See also: Unpublished Research Paper Submitted to Massey University on 2014/04/26.

[218] *General Reinsurance Corp. vs. Forsakrings Fennia Patria (1983) Q.B. 856, 873. See also: Lloyds Society of Lloyds vs. Morris (1993) Unreported. See also: Per. Hamilton J., Grover & Grover Ltd. Vs. Matthews (1910)2KB, 401; See also: Assicurazioi Generali SPA vs. Arab Insurance Group (2003) All ER (Comm.) 140. See also: The usual method in which interim is granted is by a cover note. See also: Re Yager & Guardian Assurance Co. (1912) 108, LT 38. See also: Citizens Insurance Co. of Careda vs. Parsons (1881) 7 App. Cas. 96 PC. See also: Mackie vs. European Assurance Society (1869) 21 LT 102. See also: Per Hobhous J., Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908, Also See: Baker vs. Black Sea & Baltic General Insurance Ltd. [1998] 2 ALL ER 8333. See also: Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908. See also: GE Reinsurance Corp. vs. New Hampshire Insurance Co. [2004] Lloyd's Rep.IR 404. See also: Unpublished Research Paper* Submitted to Massey University on 2014/04/26.

[219] *General Accident Fire and Life Ass. Corp. vs. Tanter (1984) 1 Lloyds Rep . 58,69; (1985) 2 Lloyds Rep 529,533; General Reinsurance Corp. vs. Forsakings Fennia Patria (1983) Q.B. 856, 864. Lloyds Society of Lloyds vs. Morris (1993) Unreported. See also: Per. Hamilton J., Grover & Grover Ltd. Vs. Matthews (1910)2KB, 401; See also: Assicurazioi Generali SPA vs. Arab Insurance Group (2003) All ER (Comm.) 140. See also: The usual method in which interim is granted is by a cover note. See also: Unpublished Research Paper* Submitted to Massey University on 2014/04/26. *See also: Re Yager & Guardian Assurance Co. (1912) 108, LT 38. See also: Citizens Insurance Co. of Careda vs. Parsons (1881) 7 App. Cas. 96 PC. See also: Mackie Vs. European Assurance Society (1869) 21 LT 102. See also: Per Hobhous J., Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908, Also See: Baker vs. Black Sea & Baltic General Insurance Ltd. [1998] 2 ALL ER 8333. See also: Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908. See also: GE Reinsurance Corp. vs. New Hampshire Insurance Co. [2004] Lloyd's Rep.IR 404.*

[220] *Balfour vs. Beaumont (1984) 1 Lloyds Rep 272, 273;See also: General Accident Fire and Life Ass. Corp. vs. Tanter (1984) 1 Lloyds Rep. 58, 61; Philips vs. Dorintal (1987) 1 Lloyds Rep. 482, 483*. See also: *Lloyds Society of Lloyds vs. Morris (1993) Unreported. See also: Per. Hamilton J., Grover & Grover Ltd. Vs. Matthews (1910)2KB, 401; See also: Assicurazioi Generali SPA vs. Arab Insurance Group (2003) All ER (Comm.) 140. See also: The usual method in which interim is granted is by a cover note. See also: Re Yager & Guardian Assurance Co. (1912) 108, LT 38. See also: Citizens Insurance Co. of Careda vs. Parsons (1881) 7 App. Cas. 96 PC. See also: Mackie Vs. European Assurance Society (1869) 21 LT 102. See also: Per Hobhouse J., Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908, Also See: Baker vs. Black Sea & Baltic General Insurance Ltd. [1998] 2 ALL ER 8333. See also: Phoenix General Insurance of Greece vs. Halvanon Insurance [1986] 1 All ER 908. See also: GE Reinsurance Corp. vs. New Hampshire Insurance Co. [2004] Lloyd's Rep.IR 404.*

costs; 9. information about the underlying insured or losses, nothing as attached any survey, report, accounts or other presentation documents.10. **choice of law and jurisdiction to settle disputes if arises any**; 11. Identification of Slip Leader (if there is a lead underwriter); 12. **Terms governing agreement of endorsements General Underwriters Agreement** (here in after GUA); 13. Policy details & 14. claims agreement details.

The slip is the only method of creating a contract of reinsurance. There are certain other practices which are being followed but the first choice is always the slip. There are certain things to be observed that the trust is one of the important factors which go in this industry. The endorsement by experienced underwriter makes the difference. The choice of law and jurisdiction is pre-determined. **Dispute is always settled in jurisdiction where law is stable.** From emerging economies point of view this makes a lot of difference.

Once a slip is being scratched by an underwriter it operates as final acceptance of the proposal, binding the insurer to issue a policy in accordance with its terms. A reinsurance slip frequently creates contractual relations between a number of reinsured's each reinsured is put in privity of contract with each reinsurer.[221] The information on a slip will usually be regarded as a statement of fact by the reinsured, not merely a statement of its belief.[222] Information on a slip is therefore of great importance, but as a representation of the facts upon which the reinsurance is offered and not as a warranty.[223] The broker will often try to approach an influential reinsurer to be the leading underwriter whose scratch will impress and induce the following market also up to the risk[224]. Normal rules of contractual construction require the context and factual matrix to be considered when looking at the words of the written document.[225] Slip policy may consist documents which were relevant to the risk and were read by the underwriters when they initialled the slip policy (such as financial accounts, business records or details of previous losses) or any other fact in case if any dispute arises.

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[221] *General Accident Fire and Life Ass. Corp vs. Tanter (1984) 1 Lloyds Rep. 58., 71*. See also: *Kingscroft vs. Nissan Fire and Marine Ins. Co. (No.2) (1999) Lloyds Rep I .R. 603, 618.* Notwithstanding this diversity of parties, the normal expectation is that the terms of composite reinsurance contained in the same, or materially similar, contractual documents will have the same meaning for all participants. See also: Unpublished Research Paper Submitted to Massey University on 2014/04/26.

[222] *Highlands vs. Continental (1987) 1 Lloyds Rep 108 in which Steyn J. held that 'information' on the slip constituted a representation.*

[223] *Sirius International Corp. vs. Oriental Assurance Corp (1999) Lloyds Rep. IR 343.*

[224] The leading underwriter does not need to subscribe to the greatest portion on the slip, but will usually be the first to subscribe. See also: *Roar Marine vs. Bimeh Iran (1998) 1 Lloyds Rep 423.*

[225] *Balfour vs. Beaumont (1982) 2 Lloyds Rep 493 , 499 (Ass'd (1984) 1Lloyds Rep 272);* See also: Lord Hoffmann in *Investors Compensation Scheme Ltd vs. West Bromich Building Society (1998) 1 WLR 896*. See also: Lord Wilberforce in *Reardon Smith Line Ltd vs. Yngvar Hansen –Tangen (1976) 1 WLR 989.*

This also shows the inbuilt mechanism of 'check and balance'. The duty of utmost good faith applies to variations in a contract.[226] The duty to act with the **utmost good faith** applies to reinsurance contracts because reinsurance is in the nature of a contract of insurance and because the reinsurer has available to him the same defences to liability as are available to the reinsured in his capacity of primary insurer[227]. The **duty of disclosure** in reinsurance is the same as in primary insurance, whether the contract is one of marine or non-marine insurance.[228]

In certain condition the 'test of materiality' is applied in cases of non-disclosure. The reinsurance will follow the guidelines set down in authorities on original insurance. The point has not been canvassed in English authorities, But it depend upon the terms and operation of any particular treaty.[229]

Misrepresentation arises when the reinsured fail to pass on to the reinsurer material information received from the insured,[230] or may fail to check false information received from the insured.[231] The general principles of illegality apply with equal force to reinsurance as to primary insurance[232].

Reinsurance contracts are subject to the same general principles of contractual construction as apply to contracts outside the reinsurance arena. The slip is worded with care by persons experienced in the terms used by the market.[233] Expert evidence is often adduced to assist the Court in constructing a reinsurance contract even when no customary usage is contended for.[234]

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[226] *Sun Life Asssurance Co. of Canada vs. CX Reinsurance Co. Ltd (2004) Lloyds Rep IR 58.*
[227] *China Trades Ins. Co. vs. Royal Exchange Ass. Corp (1898) 2 Q.B. 187.*
[228] *Highlands Ins. Co. vs. Continental Ins. (1987) 1 Lloyds Rep 109; See also: CTI vs. Oceanus Mutual Underwriting Assoc. (Bermuda) Ltd (1984) 1 Lloyds Rep 476; See also: Lambert vs. Co-operative Ins. Soc Ltd. (1975) 2 Lloyds Rep 485.*
[229] *Commonwealth Ins. Groupe Sprinks (1983) 1 Lloyds Rep.*
[230] *Equitable Life Ass. Soc. vs. General Accident Ins Corp. (1904) 12 S.L.T. 348.*
[231] *Highland Ins. Co. vs. Continental Ins. Co. (1987) 1 Lloyds Rep 109. ;* See also: *Sirius Int. Ins. Corp vs. Oriental Ass. Corp (1999) Lloyds Rep. I.R. 350.*
[232] *Great Atlantic Ins. Co. vs. Home Ins. Co. (1981) 2 Lloyds Rep. 219.*
[233] *Balfour vs. Beaumont (1982) 2 Lloyds Rep 493, 496 per Webster J.*
[234] *The admissibility of such evidence has been doubted in Barlee Marine Corp vs. Mountain (1987) 1 Lloyds Rep 471as per Hirst J. and in Baker vs. Black Sea & Gen Ins. Co. (1996) L.R.L.R 353. As Per Staughton L.J. In Phillips vs. Dorintal Ins. Co. (1987) 1 Lloyds Rep 482. Customary usage was proved in relation to terms used in a retrocession slip and confirmation. While factual evidence as to the broking of the risk is also sometimes adduced on issues of construction, its relevance is likely to be limited. See also: New Hampshire Ins Co. vs. MGN (1997) L.R.L.R. 24. See also:* Jones Legh Nicholas, Birds John and Owen David, "*Mac Gillivray on Insurance Law," Eleventh Edition, Sweet & Maxwell and Thomson Reuters, Ch. 33, Reinsurance, Pg. 1053.*

4.4.5 Judicial Reasoning on Content of Reinsurance Contract through English Case Law: Reinsurance contracts are often drafted so briefly that their terms are neither clear nor complex, a matter which has led the courts to criticize their drafting on numerous occasions.[235] In this particular case[236] the Privy Council were faced with a situation in which reinsurers denied liability to meet a reinsurance claim on the ground that a condition in the original policy had been incorporated into the reinsurance policy and resulted in the reinsurance claim being time-barred. The Privy Council rejected the reinsurer's defence and declined and to regard the time bar as incorporated into the reinsurance.

Lord McNaughton giving the opinion of the Privy Council, stated: "……*It is difficult to suppose that the contracts of reinsurance was engrafted on an ordinary printed form of policy for any purpose beyond the purpose of indicating the origin of the direct liability on which the indirect liability, the subject of reinsurance, would depend, and setting forth the conditions attached to it……. According to the true construction of this instrument, so awkwardly patched and so carelessly put together, the condition in question is not to be regarded as applying to the contract of re-insurance. To hold otherwise would… be to adhere to the letter without paying due attention to the spirit and intention of the contract……*"

Similarly Mance, J. in this particular case[237] gave its observation on construction of the reinsurance contract and the wordings used in the construction. It held: *"……..Courts will never construe words in a vacuum. To a greater or lesser extent, depending on the subject matter, they will wish to be informed of* ***what may variously be described as the context****, the backgrounds,* ***the factual matrix or the mischief****. To seek to construe any instrument in ignorance or disregard of the circumstances which gave rise to it or the situation in which it is expected to take effect is in my view pedantic, sterile and productive of error. But that is not to say that an initial judgment of* ***what an instrument was or should reasonably have been intended*** *to achieve should be permitted to override the clear language of the instrument, such that what an author says is usually the surest guide to what he means. To my*

[235] *In Forsikringasakieselskaper Vesta vs. JNE Butcher (1989) AC 852* ***Lord Templeman*** *refused to follow a trail of' insurance jargon in a reinsurance policy and incorporated documents littered with language which is un-grammatical and contradictory'* ***Lord Griffiths*** *described the policy as obscure. In Axa Reinsurance (UK) plc Field (1996) 1 WLR 1026* ***Lord Mustil*** *suggested that until disasters emerged in relation to asbestos and pollution damage in the 1980's and 1990's litigation under reinsurance contracts had been very rare and in the absence of rigorous exposure to scrutiny in the courts the wording of reinsurance contracts had been allowed to be 'more lax than was healthy'.*

[236] *Home Insurance Co. New York vs. Victoria-Montreal Fire Insurance Co. (1907) A.C. 59.*

[237] *Charter Reinsurance Co. Ltd vs. Fagan (1997) A.C 313. See also:* Colin Edelman, QC, Burns, Andrew, Craig David, and Nawbatt Akash, *"The Law of Reinsurance", First Edition, London: Oxford University Press, 2004, Chapter 01: Functions, Definitions, and Types of Reinsurance, Pg 08.*

mind construction is a composite exercise, neither uncompromisingly literal nor unswervingly purposive; the instrument must speak for itself, but it must do so in situ and ***not be transported to the laboratory for microscopic analysis…****....."*

Similarly in another case Steyn L.J. held that: *".....Dictionaries never solve concrete problems of construction. The meaning of words cannot be ascertained divorced from their context. And part of the contextual scene is the purpose of the provision….."* He says further *"…….It may seem foolish….. to say that the words of a contract should be interpreted in the light of the purposes that the parties meant to achieve when we can turn on that light only by process of interpretation. Nevertheless, it is believed that such an admonition serves a useful purpose. As the evidence comes in and as interpretation is in process, the court may soon from a tentative conviction as to the principal purpose or purposes of the parties. As long as that conviction holds… further interpretation of the words of contract should be such as to attain that purpose, if reasonably possible.' In the same section this seminal work of the author added that if the Court is convinced that it knows the purpose of the contract, however vaguely expressed and poorly analyzed, it should be loath to adopt any interpretation of the language that would produce a different result. In my judgment these observations accurately sate the approach to be adopted. When constructing a contract the court must do so objectively having regard to the material background circumstances of which both parties can be presumed to have been aware….."*.[238]

In another famous case[239] Lord Hoffman *"set out in some details the* ***Principles by which Commercial Contracts*** *should be construed. These became as the good governance practices to be followed by the reinsurance industry religiously. He held that: (1) Interpretation is the ascertainment of the meaning which the documents would convey to a reasonable person having all the background knowledge which would reasonably have been available to the parties in the situation in which they were at the time of the contract. (2) The background has been referred to as the 'matrix of fact'. However, this is an understand description of what the background may include. Subject to the requirement that it should have been reasonably available to the parties, and the subject to the expectation that the law excludes from the admissible background the previous negotiations of the parties and their declarations of*

[238] *Corbin on Contracts (1960) Vol.03, Sec 545; He Explains" the role that the ascertainment of the purpose of the contract should play in the process of interpretation:" See also: Lord Wilberforce in Prenn vs. Simmonds (1971) 1 WLR 1381-85.* See also: *The Diana Prosperity (1976) 2 Lloyds Rep 620. Cited by Phillips J. at first instance in Youvell vs. Bland Welch (1990) 2 Lloyds Rep 423.*

[239] *Investors Compensation Scheme Ltd. vs. West Bromwich Building Society (1998) 1 W.L.R. 896.*

subjective intent (which are only admissible in action for rectifications), it includes absolutely everything which would have been affected the way in which the language of the document would have been understood by a reasonable man (3) The Meaning[240] *which a document would convey to a reasonable man is not the same thing as the meaning of its words. The meaning of words is a matter of dictionaries and grammars; the meaning of the document is what the parties are using those words against the relevant background would reasonably understood the mean. The background may not merely enable the reasonable man to choose between the possible meanings of words which are ambiguous, but even to conclude that the parties must, for whatever reason, have used the wrong words or syntax. (4) The 'rule' that the words should be given their natural and ordinary meaning reflects the common sense proposition that we don't easily accept that the people have made linguistics mistakes, particularly in formal documents. On the other hand, if one would nevertheless conclude from the background that something must have gone wrong with the language, the law doesn't require judges to attribute to the parties an intention which they plainly could not have had."*[241]

Similarly another important case Andrew Smith J. held that: "…..*when considering the words 'being reinsurance of and warranted same ... terms and conditions as and to follow the settlements of the company ... For my part, I would be reluctant to read these contractual documents as making the terms of the contract of insurance terms of the contract of reinsurance. Although the wording is archaic and difficult to comprehend, I understand the phrase 'warranted same gross rate, terms and conditions' as a warranty given by the company, i.e. the insurer that has placed the risk on the same terms that he has disclosed to the reinsurers. This view is I think strongly supported by the fact that the policy is attached to the slip against the heading '***Infn***' which is clearly an abbreviation of the word 'Information' and shows that at the time that the slip is completed the policy terms are available to the reinsurer to show the nature of the risk that he is accepting. The warranty in the insurance is that the policy has been or will be written in those terms….."*[242]

It has to be kept in mind that the **commercial background is one of the reasons the parties overlook**. The **financial stakes are high the trust factor** allows to overlook these

[240] *See also: Banka of Credit and Commerce International SA vs. Ali (2002) 1 AC 251 at Pg. 39.*
[241] See also: *Charter Reinsurance Co Ltd vs. Faan (1997) AC 313. See also: Unpublished Research Paper* Submitted to University of Warwick on 2011/05/16.
[242] *Forsikringasakieselskaper Vesta vs. JNE Butcher (1989) AC. 852, 896 C/D.*

grammatical errors. Though English Court has from time to time have come down heavily on the deficiencies in the language that the parties had chosen to use. The parties with passage of time making good look of this.

Similarly in another case Hobhouse J. held that: *"……. Where a contract such as the present provides that its terms and conditions are to be the same as those of another contract and where it's clear commercial purpose is to provide corresponding cover to that provided by the other contract then unless some other powerful consideration is to intervene the conclusion must be that there is an intention that both contracts are to be governed by the same law. However, there remains* ***something surprising*** *and improbable about the conclusion that the* ***Lloyds slip and the Lloyds policy are governed by anything other than English Law****….."*[243]

Further Hobhouse J. in another case[244] gave a **set of best practices**, *".....the reinsurer is to observe certain duties namely: 1. to keep proper records and accounts of all risks accepted or premiums received and receivable and all claims made or notified. 2. to investigate all claims and confirm that they fell within the terms of the contract and were properly payable before accepting them; 3. to properly investigate risks offered to them before acceptance and closings; 4. to keep full and proper accurate accounts showing at all times the accounts due and payable by the reinsured to the reinsurers and by the reinsurers to the reinsured under the contracts; 5. to ensure that all amounts owing to them were collected promptly when due and entered for within their accounts, and all balances owing to the reinsurers were likewise paid promptly when due; 6. to obtain, file or otherwise keep in proper manner all accounting, claims and other documents and records and make these reasonably available to the reinsurers....."*[245]

Reinsurance contracts are expressed to be permanent in duration and have no express provisions for cancellation. Underwriters sometimes qualify their signature of such contracts with the abbreviation "NCAD" meaning "notice of cancellation at anniversary date", or they may give "provisional" notice of cancellation. The general intention is often to provide the underwriter with an opportunity to review the operation of the contract prior to its

[243] *Forsikringasakieselskaper Vesta vs. JNE Butcher (1986), 2 Lloyds Rep. 179.*
[244] *Pan Atlantic Ins. Co. vs. Pine Top Ins. Co. (1993,) 1Lloyds Rep 496, and 501.*
[245] The Court had two expert witnesses before it and both thought these implied terms were appropriate. Hobhouse J. held that although the opinion of the witnesses as to what was appropriate and reasonable did not itself suffice to show that such terms should be implied , he was satisfied that such terms were necessary in the transaction in issue.

anniversary date, but, in the absence of contrary agreement, if the underwriter purports to give notice of cancellation, one would expect the notice to take effect terminating the contract at the relevant anniversary date.[246]

4.5 International Applicable Law and the Jurisdictional Issues:

4.5.1 Rome Convention on Conflict of Laws Case: The Rome Convention is by and large consistent with the common law approach to determine the governing or applicable law. Under common law, the starting point is to investigate whether the parties have expressly selected a body of law at the time of contracting or whether such selection can be implied from the terms of the contract. If the court is unable to ascertain the governing law from the contract it will then look to determine with which system of law the contract has the closet connection.

4.6 Re-insurance in Emerging Markets:

4.6.1 Issues in the Emerging Economies: Insurance companies may incur losses the reasons when there are problems in the premium rating: 1. Under estimation of the expected claim costs based upon the past claim experience because of sampling errors associated with small samples or a failure to project trends in experience or because some unpredictable change in risk factors that has occurred which has brought about an increase in the frequency and/or severity of losses. 2. over estimation of the investment earnings expected to be earned on the funds.[247]

Insurance companies may also incur losses other than the above reasons when there is over protection against risks: 1.There is a random increase in the frequency and /or severity of very large individual losses or an accumulation of losses arising from one event. 2. There is random adverse fluctuation in the annual aggregate claims experience around the mean either associated with the small portfolios of business of due to fluctuations in the basic claims.[248]

By transferring to a reinsurer a part of its claim liabilities an insurance company may be able to obtain some kind of short term protection against charging inadequate premium. The technical role of reinsurance is to protect insurers against insolvency or financial strain by reducing the degree of variability in their retained costs.

[246] *Kingscroft vs. Nissan Fire and Marine Ins. Co. (No.2) (1999) Lloyds Rep I .R. 603 , 618.*
[247] Unpublished Research Paper Submitted to Dea-kin University on 2006/05/31.
[248] Ibid, Submitted to Dea-kin University on 2006/05/31.

It makes possible a further spreading of losses. The Reinsurance provides insurers with additional underwriting capacity in that they can both accept larger risks than otherwise would be possible and sometimes accommodate existing policy holders or intermediaries by writing types of business which normally they would prefer to avoid[249].

Insurers are using the reinsurance as a tool of financial risk management in order to manage their solvency margins, investment risks and tax liabilities.

4.6.2 Benefits of Re-insurance in the Emerging Economies: Reinsurance enables an insurer to consider unusual proposals which he normally wouldn't underwrite.

Reinsurer may provide to the insurers the benefit of this expertise on Technical Rating and Underwriting, Actuarial Reserving, Claims Handling and many other aspects relating to prudent writing of the direct business

Reinsurance provides a means of communication between the reinsurers and insurers of different markets and frequently acts as a catalyst by: 1. promoting new forms of insurance, 2. communicating international experience, 3.suggesting technical restrictions.

The advantages of the protection afforded by reinsurance to a direct insurer can be the net premium and losses are stabilized over a shorter period of time. The incidence of loss is widely distributed. The market capacity is increased by the participation of professional reinsurers.

A successful partnership with a reinsurer can result in rich benefits for the insurance company. Access to the reinsurance company ensures that the insurance company gains from the expertise acquired by the reinsurer. In this regards the reinsurer can provide critical underwriting and all other kinds of training and skill development[250].

Re-insurance protects the solvency of the insurance company. In an emerging economy it becomes difficult to price new products accurately because of lack of information and statistics. This could result in emergence of unexpected claims cloth in size and amount that the insurance company cannot service.

In the absence of re-insurance the insurance company will have to service such claims out of its capital.

[249] Ibid, Unpublished Research Paper Submitted to Dea-kin University on 2006/05/31.
[250] Ibid, Unpublished Research Paper Submitted to Dea-kin University on 2006/05/31.

4.7 Risk, Re-insurance and Alternative Risk Transfer

4.7.1 Insurance and Alternative Risk Transfer: In the corporate world the uncertainty associated with a future outcome or event is defined as risk. Risk management is a well established discipline practiced by many companies around the world. Alternative risk transfer (here in after ART) is the combination of risk management and innovative insurance product to find capital market solutions[251]. The capital market provides them alternative source of funds. ART is an alternative solution that transfers risk exposures between the insurance and capital market to achieve pre-defined risk management goals. The expansion of insurers into the field of ART arises in order to provide services to the client requirements and manage their own risks simultaneously. It is driven by the need to find new sources of revenue with appropriate profit margins. There is difference between risk and uncertainty and measures to control them. This process is extremely technical as it involves the selection of events of loss. **With the help of mathematical calculation and statistical analysis using probability;** it needs to find solution to loss bearing exposure. However, **human experience** is still required for analyzing and finding solution. Insurance is concerned with financial risks. But not all financial risks are insurable

Risk that bring about losses, those which are beyond control, whose financial consequences are measurable and those can be predicted and are being managed by the risk transfer system. Since insurance companies are professional risk carriers and they do this by aggregating the risks. An insurer needs to collect a premium which represents the net present value (herein after npv) of his liabilities, as follows[252]:

$$\mathbf{P} = [(q * c) + \overline{ec}\,] (1+ r)^{-t} + ei$$

Where r = the rate of earnings on funds

t = the average time lag (by payments) in the settlement of claims

ei = expense payable at inception of the insurance

ec = expense of settling claims

[251] See also: Unpublished Research Paper Submitted to University of Southampton on 2004/09/23.
[252] Carter R.L., *"Reinsurance," Second* Edition, Springer-Science & Business Media, B.V. 1983, Ch. 01, Role and Development, Pg. 10. See also: Reinsurance, 1983.

In practice is not so simple for an insurer. The past experience provides a guide to the future and conditions don't change. There can be an effective agreement to hold the assured covered under a policy at a rate of premium to be established later.[253] Similarly a reinsurance agreement must be supported by sufficient consideration.[254] A reinsurance premium is paid by the reinsured to the reinsurer and is calculated to reflect the element or proportion of the underlying risk that is passed to the reinsurer. Here **we identify relation between risk theory and insurance risk theory from application perspective in financial instruments.** The key goal of the corporate is the maximization of enterprise value (EV), which we define as the sum of a firm's expected future net cash flows (NCF's), discounted back to the present at an appropriate discount rate,

We summarize[255] this as:

$$EV = \sum_{t=1}^{n} \frac{NCF_t}{(1+r)^t}$$

Where NCF (t) is the expected net cash flow at time t, and r, is the discount rate, comprising a risk-free r(f) and a risk premium r(p). This exercise relates to controlling risks, and not eliminating risk.

The firm is basically concerned with the risk transfer to the insurance company for a regular payment of premium. To increase its risk taking appetite and profit leverage. Premium is the known cost which it pays to be relived of a contingent unknown cost.

4.8 Critical Comments on Reinsurance: Carrying forward my debate from the previous chapters we have seen that the concept of risk emerged with the maritime ventures in sea and it was initially used to describe the 'perils' over a sea voyage. But with the passage of time and with the invention of new technology the concept of risk got heavily based on computation of mathematical possibilities. But this kind of risk management doesn't give us a

[253] *Kelly vs. London and Staffordshire Fire Ins. Co (1883) Cab. & Ell. 47, 48; Wooding vs. Mon-mouth-shire Indemnity Soc. (1939) 4 All E.R. 570 , 580, 581,592; Thompson vs. Adams (1889) 23 Q.B.D 361; Lake vs. Reins Corporations Ltd. (1967) 3 S.A. 124 (W) , 128.Kirby vs. Cosindit Societa per Azioni (1969) 1 Lloyds Rep. 75.* Section 31 (1) of 'The Marine Insurance Act'- 1906, provides that where Insurance is effected at a premium to be arranged, and no arrangement is made, a reasonable premium is payable.

[254] *Clark vs. Tull; (2002) Lloyds Rep. IR 524.*

[255] Erick Banks, "*Alternative Risk Transfer: Integrated Risk Management through Insurance, Reinsurance, and the Capital Markets*," John Wiley & Sons, Ltd. West Sussex , England, 2004, Pg. 48

magic formula that can control all the events. The technical risk analysis also builds a wide gap between risk expert and the layman. We have to understand that modern risk cannot at all times be managed by scientific control, by knowledge of statistical probabilistic calculation of costs by insurance.

In my previous chapter I have also discussed how the classical sociology literature discussed about the social problems and risk was never a focal point. It was only quite later when notion of 'rationality' developed the calculating attitude of past events happened.

Underwriting is a structured decision making process which involves use of logic with assumption. No doubt the calculation of risk is based on quantitative data or in other words claims data, but still the 'acceptability of risk' by a decision maker or underwriter is made on subjective basis.

The underwriter gains this ability through theoretical study and years of experience dealing with claims in the reinsurance industry. This means that calculation of risk based on computation of mathematical possibilities cannot find answers to all kind of risk in life and subjectivity of risk cannot totally be neglected. The uniqueness here is that the actual claim cost which is the major element of the cost becomes known only after happening of the event.

In the new political economy we have moved towards 'polluter pays principle' which is a precarious freedom.

As I have discussed in previous chapter regulation is a heavily contested with multiple academics interpretations. The U.K. follows approach where rule making power are retained by the Central Government and the legislature while in U.S. regulation is largely carried out by the promulgation of authoritative set of rules.

It can be rightly said regulation is state intervention in the economic affairs of the market. New forms of governance have come to test old ideas with the new ideas to reinvent government.

In cross border regulation the corporate entities place enormous pressure on the state to confront to the dictates of the market. Similarly if state imposes high cost on domestic industry they relocate to favourable regulatory jurisdiction where law is not much settled. This transformation in the role of state dilutes the difference between the weak state and a strong state. It also gives impetus to a blend of the private and public entity with space for

public discourse. The debate has also brought forward the fact there is lack of qualified human capital which is a huge constrain in emerging economies.

Therefore risk regulation is not restricted to just governance of risk; in fact it extends to both the transformation of risk and the management of risk in the long term.

Regulators face a dilemma in supervision of reinsurance in order to protect the financial security of reinsurance. Regulation of reinsurance needs proper structured framework taking into account the individual market characteristics and individual legal system.

As we have seen in this chapter reinsurance is a mechanism used by the insurance companies to spread risk assumed from the policy holder. English law is very much settled in the application of reinsurance treaties. Drafting of the contract is one major grey area where risk is assumed by the underwriter in reinsurance.

A reinsurance contract constitutes a separate contract of insurance between the reinsurer and the reinsured. English law is far less certain in the case of reinsurance treaties. There is no statutory definition of reinsurance across legal jurisdictions.

The courts have purposive approach towards construction of reinsurance contract. The contracts are often drafted so briefly that their terms are neither clear nor complete. The reason behind this is, the contracts of reinsurance are written with the business realities. The corporate entities are the major stakeholder and put enormous pressure on State to confront the dictates of the market.

The judicial interpretation is overlooked and issue arise when courts have to interpret and settle the claims litigation on literal meaning of words in contractual draft. There is always a conflict of business interest and litigation. The dispute settlement is always better in jurisdiction where law is settle and stable.

Role of underwriter becomes very important when he assumes risk and signs the slip. The reinsurance contracts are formed by conventional offer and the broker circulates this offer in market to obtain quotation and an experienced underwriter endorses the slip on basis his experience. His assumption of risk is on the basis of experience which has subjectivity. As financial stakes are so high the trust factor overlooks the deficiencies of language. It's always tried to identify a relation between risk theory and insurance risk theory with new financial models to increase the appetite of risk taking with profit leverage.

4.9 Conclusion: Reinsurance provides insurers with additional underwriting capacity. They can accept larger risks than otherwise would have been possible. The technical role[256] of reinsurance is to protect insurers against insolvency or financial strain by reducing the degree of variability in their retained costs. Reinsurers also provide the insurers the benefit of this expertise on Technical Rating and Underwriting, Actuarial Reserving, Claims Handling and many other aspects relating to prudent writing of the direct business. The market capacity is increased by the participation of professional reinsurers. Re-insurance protects the solvency of the insurance company. There is still wide difference between the theory and practical application of reinsurance in industry. What are the various implications we will see in coming chapters.

Dr. F.L. Tuma a noted expert on reinsurance once expressed the function of reinsurance by drawing analogy with a shock absorber. He wrote: *"....The purpose of reinsurance is purely technical. It is a means which an insurance company uses to reduce from the point of view of possible material losses on the peril which it has accepted. When a carriage fitted with a shock absorber passes over a rough street the road becomes smoother but the passenger will feel the jerks less as these are absorbed by the vehicle. So it is with reinsurance it doesn't reduce losses but it makes it easier for insurance to carry the material consequences.... "*

[256] Unpublished Research Paper Submitted to Heriot-Watt University on 2005/09/05.

Chapter 5

Reinsurance in the Global South

5.1 Introduction:

Part A: Re-insurance Regulatory Framework in Brazil

Part B: Re-insurance Regulatory Framework in China

Part C: Re-insurance Regulatory Framework in South Africa

Part D: Re-insurance Regulatory Framework in India

5.2 Critical Comments on Reinsurance in the Global South

5.3 Conclusion

Chapter 5

Reinsurance in the Global South

5.1 Introduction: Insurance is a business which is based on trust and expectation. It is a surprise then to note that insurance became a trade that spanned the breadth of nations, cultures, religions, ethnicities, and politics from the nineteenth century. Contrary to common sense, insurance helps spreading risk. This chapter will demonstrate how. It will also address the following: What enable the quantification and sale of risk in different domains? How did domestic markets develop and respond to international suppliers of insurance? How did markets and institutions develop to address supply side factors?

Marine insurance is the progenitor of insurance. It started with the protection of goods and people in transit as its motive. It was a type of mutual association and took the form of insurance. In today's terms, it was non actuarial. Private brokers and underwriters remained in various ports to develop it. From cargo on the ships it moved to life on board and later on to property. Information and technology innovation helped in spreading of risk. Did insurance/reinsurance create its own market? Why there is always a search for new market? And, in what does insurance/reinsurance seek markets?

The threat to international insurance/reinsurance was the growth of economic nationalism after the Second World War. Nationalist government came to power. They were newly independent colonies. The branches of insurance were transferred to new state owned institutions. This led to stunted growth of insurance as penetration of insurance premium was severely restricted.

A common theme is tried to be identified build up in this illustration. Here, I present a comparative growth of insurance history and try to understand what will be its future growth is tried to be identified? The national insurance policy helped in shaping the structure of insurance/reinsurance institution and it's gave direction to growth of insurance/reinsurance. If our benchmark for assessment is the impact on the poor, I ask, have they benefitted? I interrogate the interventionist approach of the state in market and its impact and varied model of state supervision.

I assess the merits of insurance/reinsurance industry. Does regulation restricts or stimulates the relationship between the insurance/reinsurance and economic growth? Does cultural

consuetude restrain or pave the way of growth of insurance in this market is tried to be seen? Does the transfer of insurance technology result in a change in the structure of the insurance/reinsurance industry?

This chapter attempts to answer these questions. In the event an adequate answer cannot be arrived at, I shall demonstrate the constraints to answering these questions.

Part A: Re-insurance Regulatory Framework in Brazil

Brazil: Initially Insurance business grew in Brazil in the absence of regulation. But as a result of economic compulsion it moved toward much control of activities of state on foreign firms. It was basically as corrective measures. After 1970 liberalization started progressing and finally in 2000 extensive regulation overhaul was done.

Historical Development of the Insurance Institution in Brazil: The history of insurance companies is presumed to have started in 1808. It started with the formation of two insurance companies they were *Companhia de Seguros Boa Fe* and *Companhia de Seguros Conceito Publico* founded in the province of Bahia.[257] Initially the institutional framework was not very firm. It was unable cover the specific needs of the Brazil. The insurance legislation was borrowed from Portugal. No major development took place in the insurance industry before 1850. The information of this era is also is very patchy. Brazil experienced economic boom in the coffee exports during this period. Railways also developed during this period as Rio de Janeiro was connected to the port of Santos. The first Commercial Code was drafted. The first maritime insurance regulation also was enacted[258]. The terms of the contract[259] came it was not as English Contract Law. Brazil has a Civil law system. The evaluation of insured assts[260] was also enacted. The terms for reinsurance[261] were also brought. The regulatory framework was evolving continuously. From 1850-1889, many life, fire and maritime insurance companies came into existence. The importance of slavery in Brazil had lots of

[257] See also: Unpublished Research Paper Submitted to City University on 2013/09/02.
[258] Law 556 of June 25, 1850. Codigo Commercial 1850, Titles VIII to XIII (Second Part on Maritime Commerce). See also: Marcelo de Paiva Abreu and Felipe Tamega Fernandes, "The insurance industry in Brazil: A Long term view," Working Paper 10-109, Harvard Business School, June -2010, Pg. 1-38.
[259] Codigo Commercial 1850, Title VIII, Chapter II.
[260] Codigo Commercial 1850, Title VIII, Chapter II.
[261] Codigo Commercial 1850, Title VIII, Chapter II. Article -687.

prominence; some of the companies operating in coffee industry have slave insurance[262] also. The financial crisis of 1890-97 again brought change in regulatory framework. In 1898-1902 *Joaquim Murtinho* was appointed as Minister of Finance. He was very influential. He was responsible for enacting a legislation[263] to regulate the insurance. Due to this new legislation a (*Superintendencia Geral de Seguros*) General Superintendence of Insurance Companies was done. The Superintendence was further divided into two: Superintendence of Maritime and non-maritime insurance (*Superintendencia de Maritimos e Terrestres*) and Superintendence of life insurance (*Superintendencia de Seguros Vida*). He tried to make insurance market safer. Ceiling of issue of policies was done with the help of supervisory body. The main idea was capital was drained from the financial market. But the domestic market was not firm to absorb these measures. Later on the superintendence was replaced by Inspectorate of Insurance (*Inspetoria de Seguros*). In 1916 the government promulgated the new civil code. Due to First World War special supervision of German insurance companies was done. During this time employers judicial responsibility[264] for work accidents was enacted. But one observation here is that Brazilian Insurance industry only catered to need of coffee industry and maritime insurance for export of coffee. With Article 117[265] in 1934 Constitution made provisions to nationalize the foreign insurance companies. IRB (*Instituto de Resseguros do Brasil*) a state owned institution was created. This institute had monopoly on the insurance and reinsurance business and regulated their business.

Monopoly of Insurance Institution in Brazil: Through 1940 IRB (Decree Law 1186 of 3.4.39) government intervened in the insurance market and checked adverse balance of payment. The main objective was to avoid the drain of foreign exchange. The Decree-Law 73/1996 has created CNSP and SUSEP. This Decree Law created the Private Insurance National System (SNSP) which comprised National Private Insurance Council (CNSP), the Brazilian Reinsurance Institute (IRB), the Private Insurance Superintendence (SUSEP). CNSP defined the policies for private insurance and reinsurance and regulating their operations. 1960 IRB acceptance was made mandatory.

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[262] Campanhia de Segros sobre a Vida de Escravos – Uniao is one such company. See also: Marcelo de Paiva Abreu and Felipe Tamega Fernandes, " The insurance industry in Brazil: A Long term view," Working Paper 10-109, Harvard Business School, June -2010, Pg. 1-38. Illan Goldberg and Pedro Bacellar, Chalfin, Goldberg , Vainboim & Fichtner Advogados Associados, Practical Law : A Thomson Reuters Legal Solution : www.us.practicallaw.com (Last visited on 10/08/2014). See also: http://www.hbs.edu/research/pdf/10109.

[263] Decree 4270 of 10 Dec, 1901.

[264] Law 3.724 of 15 Jan, 1919.

[265] Marcelo de Paiva Abreu and Felipe Tamega Fernandes, " The insurance industry in Brazil: A Long term view," Working Paper 10-109, Harvard Business School, June -2010, Pg. 1-38.

When we compare the insurance business of Latin America and South East Asia in 1990 the business in life insurance is quite low compared to non-life insurance business. In 1990 IRB opened offices in London and New York.

Reforms of Insurance Institution in Brazil: From 1990's state intervention was relaxed de-regulation and privatisation of many state owned firms was started mainly telecoms and electricity. This measure was adopted due to balance of payment crisis. The IRB's reinsurance monopoly was reduced with the enactment of legislation[266]. In 2007 with a new framework the reinsurance business was opened for foreign owned and foreign based companies. IRB Brasil Re was created for reinsurance business. The Brazilian national insurance system is composed of the National Private Insurance Council (CNSP) and the Private Insurance Superintendence (SUSEP) working under the aegis of Ministry of Finance.

The introduced the mechanism of risk management in the field of insurance. Private pension funds were created. The insurance industry was linked with the capital markets.

The Superintendency of Private Insurance (SUSEP) the insurance regulatory agency approved the transfer of control of IRB-Brazil Re from Brazilian government under the share holder agreement: 1. The Brazilian Government (through the Ministry of Finance); 2. BB Seguros Participacoes; 3. Bradesco Auto RE Companhia de Seguros; Itau Seguros; 4. Itau Vida e Previdencia; 5. Fundo de Investimento em Participacoes Caixa-Barcelona. Technically its privatised but government is still the controlling shareholder. The insurance market is also governed by the Civil Code Article 757 to 802 for general insurance and persons, while Consumer Defence Code applicable to insurance relations under its Article 3 and 2.

Reinsurance: Complementary Law 126 of 2007 is enable by constitutional provisions which covers policy on reinsurance, retrocession, co-insurance, contacting of insurance abroad and insurance transactions in foreign currency. Resolutions 168, 224, 225, 232 and 241 are substitute to Decree-Law 73/1966 applicable to reinsurance. SUSEP for regulating and oversees transactions for transfers of risks involving national and foreign companies previously was with IRB-Brazil.

Contract of Insurance: Article 757 of the Civil Code defines Contract of Insurance for the purpose of law and regulation. Under the insurance contract, the insurer undertakes against

[266] Law 8666. WTO (1997), Pg. 157-163.

payment of a premium, to guarantee a legitimate interest of the insured regarding a person or thing against **pre-determined risk**. The **subject matter** of insurance contracts is the **pecuniary interest** of the insured over the person or thing described in policy. **The contract serves the risk from the insured to the insurer.** This is the major difference between English Contract Law and the Brazilian Civil law system. In the English Law System we have insurable interest. Here I would like to mention about the Precedent[267] followed in English Law system in settlement of issues by court. The Brazilian Courts follow case by case approach so no precedent is there for subsequent case to follow in future.

It is interesting to note that reinsurance contracts are contained in Complementary Law 126/2007 and CNSP Resolutions 168, 224, 225, 232 and 241 among others, as subject matter of reinsurance contracts is the 'transfer of risk' from the insurer to the reinsurer.

All insurance and reinsurance contracts are regulated by SUSEP to protect the consumers with Consumer Defence Code Law. The reinsurance contracts are less intense. Insurance companies must be organized as corporations (*sociedades anonimas*) as per the Article 72, of Decree- Law 73/1966 combined with the Article 25 of Law 4,595/1964.

According to framework established by Decree–Law 73/1966 and Complementary Law 126/2007 SUSEP ensures reinsurers operate and engage in reinsurance and retrocession activities only. There are no restrictions or market reserve for insurance. Insurers, compete with the government equally.

Limitations on the Reinsurance Market: According to Article 6 and Article 15 of Complementary Law 126/2007, and CNSP Resolution 241/2011. Insurance companies must cede 40% of risks to local reinsurance. This shows the state intervention is there to protect insurance market.

Restrictions on Intra-group transactions: CNSP Resolution 232/2011 altered the rules previously in force and created a restriction on intra-group transactions. According to this restrictions, reinsurers established in Brazil cannot transfer to their parent companies/controllers or affiliated companies located abroad more than 20% of the premium from each coverage contracted. This restriction applies to all lines of insurance **except** guarantee insurance (bid and performance bonds) internal and export credit insurance , crop insurance and **nuclear risk insurance** (Article 1& 4 CNSP Resolution 232/2011).

[267] Precedents are judicial decisions followed in subsequent cases.

Restriction of intra group transaction is not on nuclear risk insurance due to pressure of **international politics and major reinsurance players**.

Reinsurance Retention: Decree of 6,499/2008, Brazilian insurers are authorized to cede to occasional reinsurers up to 10% of the total value of the premiums ceded under reinsurance in any one calendar year. However an exception is CNSP Resolution 203/2009 ratified by CNSP Resolution 209/2010 which permits laying off to occasional reinsurance up to 25% of the value of the premiums reinsured in each calendar year. Local reinsurers are allowed to cede to occasional reinsurers up to 50% of the total value of premiums in relation to their risks in each calendar year as per Article 16, CNSP Resolution 168/2007. SUSEP provides license and permits to insurers and reinsurers and brokers to operate in Brazil. A local business permit is also required by all companies (Claim adjuster, Lawyers, Technical Experts not require any License). This is the **unique permit system which is not seen in other legal domains.**

Articles *et seq o*f CNSP Resolution 166/2007 determine that direct equity stakes that imply control of insurers may only be held by: 1. Individuals approved by SUSEP; 2. Entities authorised to function by SUSEP and; 3. Legal entities whose stated purpose is exclusively to hold equity stakes in companies authorised to function by SUSEP and that adopt the legal corporate governance standards.

Decree–Law 73/1966 deals with insurance companies which includes incorporation, authorisation to operate, and transfer or control, corporate restructuring cancellation of authorisation and election or appointment of the Directors. SUSEP and Article 5 of CNSP Resolution 173/2007 decide about reinsurance brokerage firms. To obtain authorisation to operate in Brazil and to obtain renewal of authorisation insurance and reinsurance companies must demonstrate satisfaction of the following requirements to SUSEP: 1. sufficient capital as required for the activity, 2. Formulations of business plan, 3. Indication of the controlling groups, 4. The percentage of intra group transactions and respect the guidelines, 5. Formulations of internal control measures, 6. Demonstrations of the absence of problems that can affect the reputation of the controllers and holders of qualified participations,7. Demonstrations that the company investments meets the standards of safety profitability solvency and liquidity, 8. Reporting of monthly information to SUSEP through an online programme called FIP, 9. Observance of the deadlines to apply for renewal of authorisation, 10. Payment of the annual oversight fee to the SUSEP.

CNSP Resolutions 243/2011 can also regulate on: 1. Unauthorized transactions; 2. Infractions of corporate law or accounting standards; 3. Infractions regarding the products and services offered and their marketing; 4. Situation that can affect solvency; 5. Negligent actuarial practices.

Under CNSP Resolution 243/2011, the companies supervised by SUSEP are subject to the following penalties: 1. Warnings; 2. A fine of BRL 5,000 to BRL 1 million, depending on the infraction committed; 3. A fine equal to the amount insured or reinsured in the case of insurance, coinsurance or reinsurance transactions without authorisation; 4.Suspension of the exercise of the activity for 30 to 180 days; 5. for executives from exercising position if found guilty; 6. Cancellation of authorisation to operate for companies found guilty of involvement in money laundering more than once in any five year period.

The penalties can be applied cumulatively. SUSEP looks after administrative defence if somebody wants to appeals against decision will have to go to Appeals Council of the National Private Insurance System.

A unique thing is SUSEP in case of accused he can enter administrative consent decrees (Commitments to adjust conduct) but such commitment doesn't imply admission guilt. This is equivalent of settlement through arbitration followed in English Law system.

Insurance/reinsurance services and contract can be marketed to legally constituted companies and persons aged 18 years or older and of sound mind. Article 39, CNSP Resolution 168/2007 says a reinsurer can participate in the adjustment of the claim without prejudice to the responsibility of the insurer to the insured.

Since there are distinct contractual relationships between the insured and insurer (Cedant) and the insurer (Cedant) and reinsurer, the regulatory text determines that the insurer remains liable to the insured regardless of the participation of the reinsurer in the claim adjustment process.

As per CCNSP Resolution 225/2010 reinsurance contracts either automatic or facultative can contain a clause for control of the claim process in favour of the local reinsurer when it retains the largest proportional participation in the risk. Despite this provision, which allows the reinsurer to control rather than participate in the claim adjustment process the key position remains the same that the final responsibility to the insured for the outcome of the claim process rests with the reinsurer. Any launch of new policy has to be approved by the

SUSEP. Various clauses commonly found in the insurance contracts: 1. De-limitation of the risk and restrictive clauses; 2. Intentional mis-conduct by the insured as cause for denial of coverage, 3. Utmost good faith and the consequences of its in-observance, 4. Aggravation of risk as cause to deny or reduce coverage, 5. Prompt notification of loss events.

The Common Clauses applied in Reinsurance Contracts are as per the stipulations under the Articles 33 to 41 of CNSP Resolution 168/2007: 1. Insolvency Clause (Article 33); 2. Intermediation Clause if a Broker is involved (Article 35 and Article 16 of Complementary Law 126/2007); 3. The contractual formalisation must occur within 270 days of the start of the coverage, and must state the date of the proposal and acceptance. Starting date and place for use as a time zone reference of the starting and ending times (Article 37); 4. Reinsurance of 'risks' in Brazilian territory is subject to Brazilian legislation and judicial resolution of disputes, unless the parties expressly stipulate another method such as arbitration. (Article 38); 5. Starting and ending date of the rights and obligations of each party; 6. Precise stipulation of the risks covered and excluded; 7. Criteria and procedures for cancellations; 8. A clause calling for direct payment of the reinsurer to the insured (cut through clause), (Article 34, main section and sole paragraph).

The unique feature under the Brazilian Legal System is that the **Courts interpretation of a Contract will be that most favourable to the insured (consumer)**. This principle applies to all aspects of the insurance relationship, such as rules on claims adjustment, limitation of risks, establishment of insured capital, and so on.

Brazil has specific Law on relations of consumer; Its Consumer Defence Code (CDC)- Law 8,078/1990 It basically covers supply of goods and services to end users. Article 3&2 expressly includes insurance services among the list of activation that can be covered when the insured is a consumer. It covers majority of insurance contracts. One question in front of is that insurance policies are for betterment of individuals not for companies. So can it regulate insurance contract of companies. Brazilian Judiciary also wants to be protectorate in case of small firms. CDC contains series of prerogatives that benefit consumers: 1. Inversion of the burden of proof; Interpretation of ambiguous clauses in favour of the consumer; 2. nullity of abusive clauses; 3. prohibition of tie-in sales; 4. Transparent wording of contracts in clear language and without excessive fine print.

Insurers are free to draft its own contracts but it should follow guidelines of SUSEP.

The occurrence of the loss triggers the claim. For e.g. the fire insurance will trigger the moment the fire occurred. However, the Civil Liability Insurance, identification of the trigger can be more complex and difficult, as the knowledge of the insured depends on factors outside their control. For e.g. contamination of a lake happens due to policy holders factory, local community depend on it for food and livelihood. Here it will be hard to predict when and under what circumstances a single collective claim or individual claims will be lodged against the insured, and the extent of the damage, since each human can react differently to ingestion of intoxicated fish. The public authorities can separately seek redress for damage to public health and/or the environment to force polluter to pay for the cleanup (**Strict Liability applies under Brazilian Law also**) here, it will be normal practice to adopt claims made basis policies with limitation periods. The Superior Tribunal Justice recently decided that direct claims by third parties against insurer are possible, provided the plaintiff (third party) also includes the insured as a co-defendant in the suit. Therefore, a direct suit against the insurer is not possible without the participation of the insured.[268] In Brazilian Law Victim's Right to Sue arises at the time their right is violated which marks the starting point of the limitation period.

As in most Civil Law Countries, Brazil there is two types of time bar mechanisms:

- prescriptions (prescricao); and
- pre-emption (decadencia).

This basic difference is that prescription bars the filling of lawsuits while under pre-emption the underlying claim itself becomes extinct. This system is subject to variation according to the type of insurance in question. As a rule for insurance against damages the limitations period starts to run when the insurer denies coverage by notifying the insured. For insurance of persons, (specifically personal accidents), the limitation period starts when the insured learns of the state of health causing the disability (total or partial). This is the starting date of the time limit within which the insured must notify the event to the insurer. On such notification, the time-bar is suspended until the question is resolved of whether or not the event is covered by the policy.

The general Time Limit to file an Insurance Claims is One year (Article 206, Civil Code).

It is very important to exercise care regarding the starting date of the limitation period, which

[268] *STJ, Special Appeal 962230/RS, Reporting Judge Luis Felipe Salomao, IInd Section, Judged on 08/02/2012.*

is not detailed in law, leaving up to the courts to decide, because recognition of prescription is equivalent to a judgement on the merit (with prejudice) preventing new discussion in other suits. In relation to reinsurance the Superior Tribunal of Justice in a recent controversial decision [269]held that the time bar is one year under the interpretation that the reinsurance contract is a type of insurance contract and therefore is subject to the same limitation period. In principle the insured or other third party cannot directly sue the reinsurer as insurance and reinsurance contracts have different parties (insurer and insured in the former and reinsurer and insurer/cedant in the latter).

Two exceptions to this general rule: First, is when the reinsurance contract contains a cut through clause allowing direct payment and the second applies if the insurer (cedant) becomes insolvent, which authorises the insured to seek indemnification directly from the reinsurer. And, Second, insolvency of the insurer (cedant), is fraught with complications under Brazilian law, because of the application of the rules on bankruptcy and reorganisation under which a set of creditors claims is formed on insolvency that are subject to satisfaction in the order of priority provided in bankruptcy law. These rules give priority to labour and tax creditors. Therefore, any payment made by the reinsurer outside the bankruptcy proceeding, not obeying the order of priority, can be challenged.

Both of these possibilities are established in Complementary Law 126/2007 in Articles 13 and 14. In a situation where the reinsurer takes it on itself to adjust the claim and denies coverage causing losses and damages to the insured it is possible for the insured to sue the company under the legal mechanism of extra contractual civil liability (Civil Code Article 186). Article 766 of the Civil Code establishes the loss of the guarantee when an insured an its representative makes a false or in exact declaration or fails to disclose a circumstance that would have influenced the acceptance of the proposal or the premium rate, because this is considered to be violation of the principle of utmost god faith that applies contracts. The burden of proving the omission/inaccuracy rests with the insurance company. In Brazil it is believed companies are important for economy and society and it needs to be supervised by governmental bodies and can be subject to administrative (extra-judicial) liquidation. The private pension plan operators overseen by SUSEP; banks and other financial institutions overseen by Central bank and health plan operators overseen by National Health Agency. Article 86 of Decree-Law 73/1966 establishes that insured and beneficiaries that are the

[269] *Special Appeal 1.170 .057 MG, Reporting Judge Ricardo Villias Boas Cueva, IIIrd Panel Judged on 13/02/201.*

creditors of insurance companies have a special privilege over the technical reserves, special funds and guarantee provisions for insurance, reinsurance and retrocession transactions (wording given by Complementary Law 126/2007). After the credits of insured's and beneficiaries are paid, insurers and then reinsurers are next in line regarding calls on those reserves funds or provisions. Insolvency of the insurer, if it has contracted reinsurance can engender direct payment by the reinsurer (Article 14, Complementary Law 126/2007). The tax powers of the three levels of government (federal, state and municipal) are established in the Federal Constitution of 1988. In addition to taxes as such, the federal government can also by enactment of a law (principle of legality of taxes), establishes what are called social contributions. The difference between these contributions (contribuicoes sociais) and taxes (impostos) is that the revenues from the former levies are reserved for specific uses while the money from the latter goes into the general fund. Since the money in the general fund is subject to several mandatory set-asides (such as health and education) revenue and revenue sharing with the state and municipal governments, the creation of contributions allows the federal government to have greater discretionary power.

There are three income tax regimes that apply to companies: 1. The real profit regime (for large firms); 2. The presumed profit regime (for small and mid-sized companies); 3. The Simples Nacional regime (for micro and small enterprises).

There are three-levels of Jurisdictions: 1. The Lower Court; 2. Second Instance Appellate Courts (State Courts of Appeal and Regional Federal Courts of Appeal); 3. The Superior Tribunal of Justice (STJ); and 4. Federal Supreme Court (STF), seated in Brasilia.

The STJ is charged with harmonising the interpretation of federal laws by the state and regional federal appellate courts while the STF is entrusted with deciding constitutional issues. Appeals to both can be filed in the same dispute depending on the grounds.

Normally disputes involving insurance are decided in the state civil courts. The exceptions are: 1. Cases that involve federal government entities (agencies, controlled companies and so on), over which the federal courts have jurisdiction; 2. Disputes involving amounts upto 40 times the minimum monthly wage (currently BRL 724.00*40= BRL 28,960.00) and that are less complex, which can be filed, at the plaintiff's option, in the small claims courts; 3. It is rare for insurance cases to be decided in the federal courts. The use of arbitration is common particularly for large risks. Brazil has a specific Law on Arbitration (Law 9,307/1996) and the practice is well established in the country. The decision to choose arbitration to resolve

disputes rests with the parties and an arbitral award has the same force as a judicial award. The courts can intervene in arbitration matters to enforce awards and to grant urgent measures. Arbitral awards can be set aside by the courts on certain formal grounds as well as if the award runs contrary to the public policy or good customs or the arbitration didn't observe due legal process. However, the judiciary cannot overturn the merit of the arbitral decision itself. If the arbitral clause specifies the institution that will manage the proceeding there is no need to spell out the procedure because the rules of that institution will apply. If the parties fail to specify, than arbitration law assures the parties the same constitutional guarantees of due-legal process (ample defence and rebuttal) that apply in judicial proceedings. Foreign arbitral awards have the same status as foreign judicial awards and like the latter must first be recognised by the Superior Tribunal of Justice before seeking enforcement in the court with jurisdiction over the recalcitrant or the subject matter. In insurance contracts involving individuals (consumers) the forum to resolve disputes is that of the domicile of the insured. In the cases involving companies the general rule in the Civil Procedure Code applies according to which the forum is that of domicile of the defendant.

In Reinsurance Contracts for the risks located in Brazil the applicable law and jurisdiction will be Brazilian unless the parties choose arbitration or foreign venue in which case they are free to choose the applicable law and the chamber/forum responsible for conducting the arbitration (Article 38, CNSP Resolution 168/2007): 1. The National Federation of Reinsurance Companies- (FENABER): It's a non-profit association that represents reinsurance companies operating in Brazil. In addition to its political aspects it promotes the development of the reinsurance market in Brazil; 2. The National Federation of the Insurance, Reinsurance, Capitalisation and Private Pension Brokers - (FENACOR): It represents 26 state brokerage associations. Its main purpose is to defend the interests of brokers versus private entities and public authorities; 3. The National Confederation of Insurance, Private Pension, Health and Capitalisation Companies (CNSeg): It politically represents four national federations of the insurance industry; its purpose is to co-ordinate political actions and designs strategic plans for the industry and to represent it with the government, society and the national and international entities.

The *four* National Federations namely:

1. The National Federation of Insurance Companies (Fen-Seg);

2. The National Federation of the Private Pension and Life Insurance (Fena-Previ);

3. The National Federation of Supplementary Health Plans (Fena-Saude); and

4. The National Federation of Capitalisation (Fen-Cap).

Part B: Re-insurance Regulatory Framework in China

China: China's regulatory and legal regime governing the industry is complex and adapting itself to global insurance market. It has consolidated itself. It has focused itself on regulatory measures and identified problem areas and brought regulatory measures at par with global insurance market. It has created set tools for supervising market and enforcing compliance of market. It wants to promote stable and sustainable growth of insurance market.

Historical Development of the Insurance Institution in China: Chinese traders in the third millennia BC were some of the very first practitioners of risk diversification dividing their wares between vessels to limit losses. But modern concept of insurance was introduced in China by foreign traders in 1800. Southern port cities of China were where marine, fire and life insurance were introduced by foreign traders. The **unique feature of insurance** in China is the **foundation of insurance** was laid by **foreigners**. European traders were in forefront.

The first entity to establish in China was Canton Insurance Society in 1805[270]. The society was pooled for shipping risk. It was formed in Macau by trading houses namely Dent & Co. & Jardine Matheson & Co. They brought co-insurance in 1820. In 1829 had signed pact with Phoenix of London. In 1835 Dent left partnership formed with new name Union Insurance Society of Canton. They moved to Hong Kong in 1842 when Britishers came there.

In 1842 Opium War was forced on China. In 1862 North American trading company Russell & Co. was founded under the name of Yangtze Insurance Association. They dominated the marine insurance on Yangtze River. The foreign traders transferred their insurance trade expertise to local people also. Under the treaty was signed with the Imperial Regime. A manager of China Mutual in 1890 became the founder of China United Assurance Society

[270] "A History of Insurance in China," Presented by Swiss Re Corporate History-2014, Pg. 1-60. Available at: www.swissre.com (Last visited on 12/12/2014). See also: Carrie Yang, Ik Wei Chong and David Coupe; "China: PLC Insurance and Reinsurance Law"; Market Trends and Regulatory Framework: www.mondaq.com (Last visited on 10/08/2014). See also: "PLC Insurance and Reinsurance 2011."Mondaq Business Briefing, May 11 2011 Issue.

1912. Chinese merchants started investing in Union Insurance Society. China Merchants Steamship Navigation Company in 1875 is the first domestic insurance industry. Jehe Maritime & Fire Company was formed in 1878. But in 1886 the two companies merged due to financial constrain.

There was no Company Law in China but foreign traders operating in Hong Kong passed the Company Law in 1865. Shanghai by 1930 became hub for foreign traders. Slowly domestic insurance companies became expert in the field of insurance. In 1907 the China Fire Insurance Company opened office in Niuzhuang. It also paid for the losses due to fire in Bangkok. In 1920 Corneluis Vander Starr became a famous underwriter. Sino-Japanese War of 1895 influenced the development of insurance. In 1937 Chinese Insurance Yearbook was released which showed the dominance of British insurers. China United Assurance Society Ltd. 1912 and Venus Life Insurance Company 1914 were the first to sell Life insurance policy in China. The reason for late growth of life insurance policy is the traditional society of China. They were conservative to death policies.

Reform in Insurance Institution in China: In 1930 Swiss Re signed its first reinsurance treaty with Shanghai based Tai Ping Insurance Co. In 1931 war broke out with Japan which affected business from 1937-45. But Swiss Re remained the technical advisor to Union Insurance Company of China. Tai Ping Insurance Co. With Swiss Re reinsured the Dutch East Indies fire business and expanded to Philippines and Malaysia. In 1932 Factory Law was enacted which enforced 'compensation for work related injury'.

Nationalist firmness of Insurance Institution in China: In 1949 new laws were enacted in China which put restriction on business of private insurance and reinsurance companies. The growth of nationalism began and which led to the commercial protectionism in China. The Chinese Insurance Law 1935 made it mandatory companies offering insurance must have Chinese nationals on board. Two-third share holders (property) in the companies must be Chinese national. The treaties were signed with imperial government to restrict practice in inland (mainland) market. The history of China-Japan War (1935-1945) is little scratchy so no major industrial details are available of this time. There was lots of turmoil in insurance business especially marine insurance.

The foundation of People Republic of China (here in after PRC) changed the insurance landscape of China. Private Insurance operation began to close down by 1959. Operations of private sector Chinese companies reduced or became part of People Insurance Company of

China (here in after PICC) between years 1949-1953. The private sector was replaced by state run enterprises. Heavy taxation was the tool applied to annihilate the private insurers to operate. Tai Ping Insurance Co. became an arm of PICC.

Dominance of State Owned Insurance Institution in China: Great leap forward was the new campaign started by Mao Zedong Chairman of Chinese Communist Party. China **believed Insurance as an independent entity has no place in the Communist Society**. This is **very capitalist** in nature. However this perception changed after some years. In 1964 People Bank of China restarted People Insurance Company but it failed miserably. Hong Kong which was under British rule from 1969 became the industrial city. It became hub of fire and marine insurance. The Cultural Revolution was still continuing in China.

In 1972 US President Richard Nixon visited China and trade ties were resumed. It was only 1978 after the 11^{th} Central Committee Meeting approval the overseas trade picked up and private enterprises started operating in Chinese economy. Between, 1980-1990 the insurance industry grew rapidly. In 1988 Ping an insurance company got the regulatory approval to operate other than PICC. In 1992 AIG of US as foreign insurer started operation in China.

In 1985, Provincial Regulations Governing the Administration of Insurance Enterprises created three insurance companies other than PICC. In 1991 one of these insurance companies with the insurance department of the Bank of Communication established as China Pacific Insurance Company. In 1992 Ping was restructured as joint stock company for inland operations. In 1986 Xinjiang Corps Insurance Company started concentrating on rural insurance in mainland.

Regulatory Structure of State Owned Insurance Institution in China: China Insurance Regulatory Commission CIRC was established in 1998. It role: 1. Examines and approves the establishment of insurance companies; 2. Supervises insurance business operations; 3. Investigates irregularities; 4. Impose penalties if necessary.

The 1995 insurance law restricted insurance companies to operate either in property or in life not both. In 1996 PICC was split in three wings: 1. China Life Company; 2. PICC Property and Casualty; 3. PICC Reinsurance.

In 2001 People's Republic of China became a member of WTO. This had indirectly impacted insurance industry also. CIRC also trained it employees for actuarial science and actuarial exams. This step strengthens the Reinsurance industry. It enhanced their expertise in service

products, underwriting skills and claims handle matters. They also become strong in managing risk of large infra structural projects. Banc-assurance is also responsible for rapid growth. Social Insurance Law-2008 brought changes in old age pension, medical, unemployment etc. Agriculture insurance is another area growing rapidly finance is being provided to farmers.

In 2004 China Reinsurance Company was restructured: 1. China Life Reinsurance Co.; 2. China Property Reinsurance Co.; and 3. China Dadi (Continent) Property Reinsurance.

In 2007 China Re was renamed as China Re (Group) Corporation. Swiss Re increased participation with Chinese insurance and reinsurance sector. In **2005 China Nuclear Insurance Pool was established.** Swiss Re joined hand with Chinese Universities and research institutions.

CIRC Regulatory guidelines are to improve operational effect: 1. subsequent regulations are drafted by the CIRC and are issued under the authority of the state council; and 2. administrative regulations and guidelines are issued under the authority of the CIRC chairman.

Contractual application of insurance and reinsurance is governed by PRC Insurance law.

Article 2, PRC Insurance Law specifically defines a 'commercial transaction' involving a contractual agreement. It states: 1. a proposer pays a certain premium to the insurer; 2. the insurer undertakes liability to pay indemnity or insurance money in accordance with the insurance contract.

As per Article 3, PRC Insurance Law, The provisions of the PRC Insurance Law apply to all insurance activities that take place within the PRC.

As per Article 8, PRC Insurance Law an insurance business must be operated separately from banking, securities or trust businesses.

As per Article 10, PRC Insurance Law, the contract of insurance follows the rules of offer and acceptance, the proposer (that is a person applying for insurance either on his own or another's behalf) and insurer agree on the insurance rights and obligations.

As per Article 11, PRC Insurance Law an insurance contract is not recognised unless: 1. it complies with the principles of fairness and mutual benefit; 2. all points in the contract are mutually agreed and freely negotiated (except for compulsory and statutory insurance); and 3.

it doesn't harm the public interest.

As per Article 12, The PRC Insurance Law contains certain rules concerning insurable interest. Only entities that have an insurable interest in either the insured (for personal insurance contracts) or the subject matter of insurance (for property insurance contracts) can conclude valid insurance contracts. **Insurable interest is defined as the legally recognised interest that the proposer or insured has in the subject matter of insurance.**

As per Article 28, PRC Insurance Law Reinsurance is the transference of a portion of an insurer's underwritten business to another insurer in the form of a ceded policy. The PRC Insurance Law does not provide much guidance on **separate Reinsurance Contracts**. A reinsurance contract is considered to be more similar to general commercial contract. **The Reinsurance Law and its contractual application are still in nascent stage.** But if observe the **English Common Law** has lots influence on the Contract Law. **The influence foreign traders can be seen in drafting of legislations.**

As per Article 31, PRC Insurance Law, the personal insurance contracts, the persons in which a proposer can have an insurable interest include family members, close relatives and employees. In addition a proposer has an insurable interest in the insured if the insured consents to the conclusion of the contract by the proposer on his behalf. For an insurance contract to be valid, the proposer or insured must have an insurable interest.[271]

As per Article 48, PRC Insurance Law, insurable interest at the time of the occurrence of the insured event (for a property insurance contract).

The mandatory provisions of the PRC Insurance Law it is subject to the: 1. General Principles of Civil Law of the PRC; and 2. PRC Contract law.

No regulatory exemptions exist for Contracts of Insurance. There are no other sector specific administrative regulations available. A Reinsurance Contract is considered to be more similar to a general commercial contract.

Part VIII Supplementary Provisions, of PRC Insurance Law, certain regulatory exceptions exist for: 1. Defined in Article 184, for the maritime industry; and, 2. Defined in Article 187, for the agricultural industry.

The regulatory framework for Insurers and Reinsurers is generally identical, although: 1. The

[271] See also: "PLC Insurance and Reinsurance 2011."Mondaq Business Briefing, May 11 2011 Issue.

CIRC has issued specific regulations and rules to regulate the operation of reinsurance business in the PRC; 2. Some insurance regulations and rules issued by the CIRC explicitly provide that they will not apply to reinsurers.

Insurers cannot conduct non-insurance business although there is no specific provision to this effect.

As per Article 95, PRC Insurance Law An insurer can only engage in either: 1. Personal insurance business (including life health and accident insurance); 2. Property insurance business (including property loss, liability, credit and surety insurance); and 3. other insurance related business approved by the CIRC.

As per Article 98, 99 and 100, in PRC Insurance Law there are requirements relating to the **transfer of risk by insurance companies**.

Insurance Law the insurance companies must allocate funds into various: 1. Liability reserves; 2. Common reserve funds; and 3. Insurance security funds. The CIRC can set measures for the funding management and use of those reserves and funds.

As per Article 101 to 108, PRC Insurance Law the CIRC has significant authority to decide an insurers risk transfer measures including the amounts: 1. for minimum solvency 2. for self retained insurance premiums; and 3. of percentage liability born by the insurer per risk unit.

As per Article 116, PRC Insurance Law business activities forbidden are: 1. Fraudulent practices; 2. The deliberate concealing of material information; and 3. Favouritism.

The Administration of Business issue by CIRC on 01/07/2010 list statutory requirements for the transfer of risk for reinsurers: 1. for direct property insurance business which is ceded by way of proportional reinsurance. The proportion of business ceded to a reinsurer for each risk unit must not exceed 80% of the insured amount or the limit of liability in the direct insurance contract underwritten by the direct insurance; and 2. Both the direct insurer and the reinsurer must adopt consistent assessment methods and assumption when assessing the statutory reserves for the same life insurance business.

Insurance providers must be authorised by the CIRC. The application process material includes are: 1. Letter of application for establishment; 2. A feasibility study report; 3. A formation preparatory plan; and 4. The investors business licence

As per Article 68, PRC Insurance Law for establishing local insurance company, the

requirements for **domestic** shareholders are: 1. Have the capacity for sustained profitability; 2. Don't have a record of a major violation of law or regulation during the previous 3 years; 3. Have net assets of at least CNY200 million and registered capital as per PRC Insurance Law; 4. Have articles of association that comply with the PRC Insurance Law and the PRC Company Law; 5. Have director's supervisors and senior management personnel with sufficient professional knowledge of their positions and work experience in the business. 6. Have a place of business and other business related facilities that meet the CIRC's requirements. Comply with other conditions as specified by law administrative regulation or the CIRC. **For foreign insurers, they must:** 1. Have been in business for more than 30 years; 2. Must have a representative office in the PRC for at least 2 years; 3. Have total assets of at least US $ 5 Billion. 4. Fulfil any other conditions that the CIRC deems prudently necessary.

As per Article 72, PRC Insurance Law restricts not to engage in any insurance business activities and apply to CIRC for permission of permit. After obtaining permit register with the PRC Administrative Body for Industry and Commerce.

As per Article 117, PRC Insurance Law insurance are defined as institutions and individuals engaged on its behalf charge commission to the insurer.

A foreigner must satisfy certain requirements before it can apply to establish an insurance broking company: 1. engaged in insurance business for 30years or more; must be in China for last 2 years; 2. total assets before applying US $ 200 million; must satisfy stipulated requirements of CIRC.

Loss adjusting companies and individuals must be licensed and authorised by the CIRC to carry out loss adjustments activities. Insurance loss adjustment institutions are defined as entities that are specifically engaged in the assessment survey.

As per Article 2 and 8, Supervisory Provisions on Insurance Loss Adjusters Institutions PRC Insurance Law; there are no exemptions or exclusions from authorisation or licensing for insurance business or related activities in the PRC.

A foreign insurer is not permitted to underwrite the **following risks** without requiring specific authorisation: 1. Reinsurance and 2. International Marine insurance; 3. **Aviation insurance** and, 4. Transport insurance.

As per Article 84 (7), PRC Insurance Law the CIRC's approval is needed if there is a change

in shareholder whose capital contribution accounts for at least 5% of the total capital of a limited liability insurance company or who holds at least 5% of the share joint stock insurance company.

As per Article 86 to 88, PRC Insurance Law a licensed or insurance or Reinsurance Company must comply with following: submit relevant reports statements, documents and information relating to its business activities as per CIRC's guidelines.

CIRC's new regulations: 1. Provisions for the Administration of Insurance Companies 2009; 2. Regulations on Administrative of Foreign Invested Insurance Companies 2001; 3. Provisional Regulations for the Administration of Reinsurance Business 2010; 4. Measures for the Administration of Insurance Clauses and Premium Rates of Property Insurance Companies 2010; 5. Administration Measures for Equities of Insurance Companies 2010; 6. Notice Concerning Large Scale Commercial Risk Insurance and Master Policy Insurance Business 2002; 7. Circular on Issues relevant to Reinsurance Business Safety2007; 8. Notice concerning clarification on Administration of Branches of Insurance Companies 2010; 9. Provisions for the Administration of Insurance Broking Institutions 2009; 10. Provisions for the Administration of the Insurance, Agency and Institutions 2009; 11.Provisions for the Administration of Insurance Loss Adjusting Institutions 2009.

As per Article 179, PRC Insurance Law; The CIRC can impose a number of penalties under Part Seven (Legal Liability) including a fine of upto CNY 1 Million for certain acts of non-compliance. When a law of administrative regulations is violated and the consequences are serious the CIRC can ban the relevant responsible persons from the Chinese insurance industry for a certain period of time (lifetime bans are possible).

As per Article 177, PRC Insurance Law; an insurance provider can incur civil liability if any loss is caused to a third party due to breach of the PRC Insurance Law. These Articles also apply to marketing insurance and reinsurance services also.

As per PRC Insurance Law and the CIRC Circular on Issues Concerning Security of Reinsurance Business a ceding company must ensure among other things that each reinsurer meets specific requirements. It says the rating only apply to treaty and not to facultative reinsurance.

Other than Nuclear and Aviation Insurance the paid up capital of reinsurers must be at least CNY 200 million or its equivalent in other currencies. [272]

If the treaty reinsurance leader is not a professional reinsurance company its actual paid up capital must be at least CNY 1 Billion or its equivalent.

The reinsurer's solvency ratio must satisfy the solvency standard set by the local supervisory authority. The reinsurers must have no previous record of any serious violation of laws and regulation in the two accounting years before the inception of the reinsurance agreements.

In practice it not uncommon to see underwriting claim control and /or claim cooperation clauses in reinsurance agreements. However these clauses do not usually restrict the control and management of the ceding company's business and operations.

As per Article 28, PRC Insurance Law, A **reinsurance company can request information** from the cedant company concerning its **retained liability and other relevant circumstances** of the original insurance policy. The cedant company must resent this information in written form.

As per PRC Insurance Law Provisions on the Administration of Reinsurance Business, A Cedant must inform a reinsurer in writing and in a timely manner of any information which may have a significant impact on the level of reserving needed and **claims likely to be payable by the reinsurer**.

The Principle of **Utmost Good Faith doesn't exist** under the PRC Insurance Law.

The IAC has included provisions in its model wording which, in summary, provide: 1. In concluding the policy the proposer must make truthful representations concerning the insurers enquires on the relevant circumstances of the subject matter of the insurance or the insured (Proposer's Duty of Disclosure). 2. The insurer has the right to terminate the policy if the Proposer deliberately or due to gross negligence fails to perform its duty of disclosure and that failure is sufficient to significantly affect the insurer's decision.

Whether to:

- accept the risk;
- Increase the level of premium.

[272] See also: "PLC Insurance and Reinsurance 2011."Mondaq Business Briefing, May 11 2011 Issue.

This right of termination must be exercised within 30 days from the date on which the insurer is aware of a reason for termination: 1. where the proposer fails to perform its duty of disclosure, the insurer is not liable to pay an indemnity for any insured event when occurred before the termination of the insurance policy. If that failure was deliberate the insurer will not refund the premium. If the failure was through gross negligence the insurer will refund the premium. 2. The insurer cannot terminate and must pay indemnities for any insured event if it was aware of the failure of the proposer to perform its duty of disclosure before the conclusion of the policy.

These provisions in the model wording basically reflect the provisions in the PRC Insurance Law.

As per Article 17, PRC Insurance Law The insurer must draw the attention of the proposer to clauses in the insurance contract that exempt the insurer from liability and expressly explain the contents of such clauses to the proposer in writing or orally otherwise these clauses will not enter effect.

As per Article 2, **The Provisions on the Administration of Reinsurance Business**; PRC Insurance Law: Treaty reinsurance and the facultative reinsurance are specifically defined;

1. **Treaty reinsurance** an insurer concludes a contract with another insurer beforehand to agree to reinsure part of its underwritten insurance business within a certain period with another insurer.

2. **Facultative reinsurance** an insurer temporarily agrees with another insurer to reinsure part of its underwritten insurance business with another insurer. Treaty reinsurance is more popular in the China because: 1. It is common for large risk in the Chinese market to be placed by way of co-insurance (instead of facultative reinsurance). 2. There is substantial treaty capacity in the market. It is interesting to note that common clauses in reinsurance policies are very similar to those found in more mature reinsurance markets,

Those including: 1. Claims notification and settlement; 2. Follow the fortune; 3. Terms and Termination; and 4. Inspection of records.

In China the insured of the primary insurance cannot claim indemnity directly from the reinsurer. **Cut through Clauses** may not be effective. Reinsurance contracts between two PRC entities must be subject to PRC law. For reinsurance contracts between Chinese cedant and foreign reinsurers the parties are theoretically free to choose a foreign law to be the

governing law of the reinsurance contract if foreign related. **Parties generally settle disputes through arbitration instead litigation.**

As per Article 16, PRC Insurance Law, a claim under an insurance policy is triggered on the occurrence of an insured event.

As per Article 21, PRC Insurance Law, after the insured event occurs the proposer insured or beneficiary must notify the insurer in a timely manner.

As per Article 5, PRC Insurance Law, the parties to the insurance activities must follow the principle of good faith when exercising their rights and performing their obligations.

As per Article 22, PRC Insurance Law, it needs to provide all proof or information that it has determine: 1. The nature or cause of the insured event; 2. The extent of the losses due to the insured event; and 3. Other circumstances surrounding the event.

As per the General Principles of Civil Law of the PRC Insurance Law there are **no specific Limitation Periods for Reinsurance Contracts** which are considered more similar to a general commercial contract.

The prevailing view is that the limitation period commences from the date on which the reinsured is aware or should be aware of the fact that its liability under the primary insurance contract has been ascertained by a valid document or other evidence, including: 1. Settlement agreement; 2. Court judgement; and 3. Arbitration award.

As per, PRC Insurance Law; an original policy holder or the third party, cannot, enforce a reinsurance contract against a reinsurer. Insurance companies must deposit 20% of their paid up capital with banks as a guarantee of funds against insolvency.

As per Article 18 (9), PRC Insurance Law, a valid insurance contract in the PRC must contain provisions detailing the remedies for breach of contract.

As per Article 27, PRC Insurance Law, false claims made concerning an insured event and circumstances where the insured deliberately causes an insured event, the insurer has the right to terminate the contract and retain all insurance premiums.

CIRC can intervene in the insolvent insurance companies: 1. Demand a capital injection; 2. Restrict a company's business scope; 3. Restrict the distribution of profits to shareholders; 4. Limit the purchase of assets or the scale of operational costs; 5. Change allocation of assets; 6. Order the sale of assets or the transfer of insurance portfolios; 7. Limit the remuneration of

directors and managers; and 8. Prohibit the company from the accepting new business.

A cedant and a reinsurer are free to agree on either litigation or arbitration as the dispute resolution mechanism in the reinsurance contract. However in practice arbitration has become the main dispute resolution method used to settle reinsurance claims.

Part C: Re-insurance Regulatory Framework in South Africa

South Africa: South African insurance sector went through a very rapid transformation. Due to some features the study of South African insurance sector is very unique in itself. The insurance market in some measures is the most advanced in the world. However the financial inclusion is still limited and in some ways it's still not a mature market for the world.

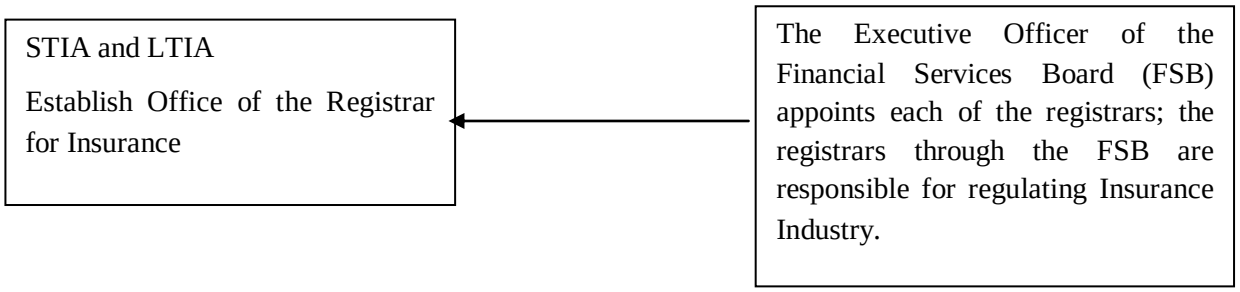
Historical Development of the Insurance Institution in South Africa: Insurance in South Africa is believed to have started in 1826. United Empire and Continental Life Assurance Association opened their office in 1826. In the same year The Alliance British Foreign Fire and Life Insurance Company also opened its office. A local entity was also formed in 1831 named South Africa Life Assurance Company. The Mutual Life Assurance Society of the Cape of Good also opened its office in 1845. This company is still in existence. Mutual Life Assurance was based on the financial business structure of Scottish Equitable Mutual Life Assurance Society. Another Company Zuid Afrkaansche Brand en Levensersekering Maatschappijj opened its office in 1835. Lloyds of London got its first agent in Cape of Good Hope in 1850. South Africa was a British Colony resulting in considerable influence of English Law system in regulatory structure and financial structure. By the end of the nineteenth century Cape Colony became the major hub of foreign insurers.

Reforms of Insurance Institution in South Africa: The South African Insurance industry is highly developed and sophisticated[273]. Both the long-term and short-term insurance industries are highly regulated. It has a presence of many reinsurers; the Lloyds of London has a strong presence in the market. There is a strong competition among insurers. There is also a strong broker and insurance intermediary influence.

[273] Patrick Bracher, Donals Dinnie and Christine Rodriques of North Rose Fulbright South Africa Inc.; Insurance and Reinsurance in South Africa: Overview (Multi Jurisdictional Guide 2014/15: See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).

The Regulatory Framework: The Insurance Industry in South Africa, including short-term and long-term insurance, and reinsurance is governed primarily by the: 1. Short-Term Insurance Act 1998 (here in after STIA), and, 2. Long-term Insurance Act 1988 (here in after LTIA)

The STIA regulates the short term industry. This covers the risk based insurance of assets bodily integrity and liability. The LTIA regulate the long term industry. This covers mainly life and investment products. In addition specific types of business are regulated by specific statutes, including: 1. Medical Schemes Act, 1967 (MSA) is regulating, accident and health business, concerning providing money to pay medical expenses. 2. The Pension Funds Act, 1956, regulates pensions. 3. Unemployment Insurance Act, 2001 regulates unemployment insurance, 4. Compensation for Occupational Injury and Diseases Act, 1933, it regulates compensation for disease and injury arising in the course of employment. 5. Road Accident Fund Act, 1996, which covers road accident victim (within limits).



The FSB supervises the solvency reporting requirements and the regulation of insurers and reinsurers.

However FSB does not regulate or supervise the entire insurance group. It has as a member an insurance subsidiary authorised in South Africa. It regulates the subsidiary. It looks after reporting and accountability activities. It also looks after solvency and financial support for the group[274].

Contract of Insurance: Insurance in South Africa is undertaken through an insurance contract. An insurance contract is reciprocal in nature: in exchange for premiums paid by an

[274] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).

insured, the insurer undertakes to pay the insured a benefit on the occurrence of a specified event. The English Law System has influenced this area[275].

A short term policy can be one of or a contract combining of the following (including contracts to renew or vary). 1. An engineering policy; 2. A guarantee policy; 3. A liability policy; 4. A miscellaneous policy; 5. A motor policy; 6. an accident policy or health policy;7. A property policy; 8. A transportation policy.

A long term policy can be one of or a contract combining any of the following (including contracts to vary). 1. An Assistance policy; 2. Disability policy; 3. A fund policy; 4. A health policy; 5. A life policy; 6. A sinking policy.

Since 1998 the insurance contract has become more consumers friendly. The Policy-holder Protection Rules (PPR) specifies how the policy must be presented to the policy holder to make it more accessible.

Contracts of Reinsurance: A short-term reinsurance policy is defines as a reinsurance policy in respect of a short term policy. A long term policy is defined as reinsurance policy in respect of a long term policy.

The STIA and LTIA regulate all contracts that fall within the definition of a short term and long term policy and reinsurance policy and any insurance business carried out in South Africa.

However in contracts such as maintenance contracts, manufacturer's guarantees are provided by the manufacturer or seller itself and hedging contracts fall outside the scope of regulation[276].

Regulatory Structure of Insurance Institution in South Africa: The Registrar grants a licence to an entity to carry on insurance business in South Africa if it's a public company. The main object of the company must be to carry on short term or long term insurance business. A licence to carry on insurance business in South Africa will not be granted to branches of foreign insurers.

However insurers and reinsurers can be 100% subsidiaries of foreign insurers. The FSB regulates insurers and reinsurers under STIA and LTIA. Regulation is the same for both insurers and reinsurers. Both the STIA and LTIA prohibit any person from carrying out the

[275] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).
[276] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).

insurance or reinsurance business in South Africa.

Insurers and reinsurers can carry on non-insurance business that is ancillary to the main business. The registrar approves the constitutional documents of an insurer and reinsurer once they are licensed. There are no statutory limits or restrictions relating to the **transfer of risk** by an Insurance or Reinsurance company provided that, where the insurer or reinsurer retains the risk, it ensures that it always remains financially sound and solvent as required by the STIA and LTIA[277].

An entity cannot conduct any kind of long term or short term insurance business in South Africa unless registered and the Registrar of FSB has approved the application. **He has the discretionary powers.**

The requirements for registration as an insurer or reinsurer are set out in Part II of STIA and LTIA. The entity has to provide the details: 1. Shareholders; 2. Management; 3. Nature of business; 4. Projections and 5. Financial resources.

If a person is providing "intermediary services" as defined in the Financial Advisory and Intermediary Services Act, 2002, (FAIS Act), that the person must be either; 1. Registered as financial services provider (FSP) and 2. Representative of an FSP.

Intermediary services include financial advice and services relating to entering into products dealing with funds and handling claims. It is an offence to provide intermediary services and not be registered under the FAIS Act. There are **no requirements for other providers** of other insurance and reinsurance related activities such **as consultants or claims adjusters**. There are **no particular requirements concerning the ownership or control of insurance or reinsurance companies.** There is **no restriction concerning the identity or domicile of a shareholder in a locally registered insurance or reinsurance company**[278].

There are no specific restrictions or authorisations concerning the ownership or control of foreign entities or shareholders in local entities providing marketing of insurance or reinsurance services.

If an insurer or reinsurer operates without a licence it can be fined ZAR 1 million. Under Financial Advisory and Intermediary Services Act 2002 (FAIS Act). For financial services

[277] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).
[278] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).

providers (FSP's) non-compliance with the terms of the FAIS can result in either or both[279]. The reinsurance treaty or policy's terms and condition govern the extent to which a reinsurance company can or must monitor the cedant company's claims settlements and underwriting. A short term personal lines policy is a policy where the policy holder is a natural person acting otherwise than solely for the purposes of their own business. Any other policy is a non-personal lines policy.

Facultative/Treaty Reinsurance: Both facultative and treaty reinsurance are present in the South African market. Reinsurance contracts often contain **follow- the-settlements** and **follow the-fortune clauses**. Reinsurance treaties commonly include **choice of law, arbitration** in the event of a dispute and consequences of misrepresentation and breach clauses. There is a general duty of **utmost good faith i**n relation to insurance policies. There is rule against double compensation / indemnity.

Customer Protections: The Policy holder Protection Rules provide for a review procedure for rejected or limited claims. If an insured is not satisfied with the outcome of a claim, or the amount received under a claim. It can complain to the relevant ombudsman. A compliant can be made to the Financial Advisory and Intermediary Services Act, 2002 (FAIS) ombudsman concerning the provision of advice or the rendering of intermediary services under the FAIS Act.

Standard Policy: The Competition Act, 1998 prohibits standard industry wide policy wordings. The quasi governmental South African Special Risk Insurance Association (SASRIA) provides war risk, riot, and similar cover.

Insurance and Reinsurance Policy Claims: For risk insurance, the following must be established: 1. An insured event must have occurred; 2. There must be a patrimonial loss with adverse financial consequences or damage suffered as a direct result of the insured event occurring; 3. The insured must have complied with the terms and conditions of the insurance policy. Life and investment policies pay benefits on the happening of either the insured event or a stated maturity date.

Enforcement: A reinsurance contract exists between the insurer/assurer and the reinsurer. The original policy holder or other third party cannot therefore enforce the reinsurance contract against a reinsurer as it doesn't have a direct claim against the reinsurer. A policy

[279] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).

holder can bring a direct action against the reinsurer for a liability claim if the primary insurer is insolvent as per the Insolvency Act, 1936.

Punitive Damage Claims: Punitive damages are generally **not provided** for in South African Law. There is nothing in South African law to prevent an insurance policy from covering punitive damages, provided that the policy doesn't indemnify the insured for a risk that is the consequences of the insured's deliberate or intentional conduct.

However, this would still need to be tested against public policy. If it is contrary public policy the insurance policy would be unenforceable. South African law allows for the awarding of damages for the breach of constitutional rights in circumstances where constitutional rights are affected and there is no other remedy. When it comes into operation, the Protection of Personal Information Act will allow for an award for aggravated damages for unlawfully processing or revealing private information[280].

Insolvency of Insurance and Reinsurance Providers: The Insolvency Act 1936 applies to cases of insolvency. The relevant registrar has the power to intervene and to become a party to the application for business rescue or winding up of the insurer. The registrar will intervene if it deems it in the interest of the insurer's policyholders to do so. Written approval of the Minister of Finance is required to apply for the winding up of an insurer. The policy holder will be an unsecured or concurrent creditor in the liquidation.

Insurance and Reinsurance Dispute Resolution Mechanism:

Insurance disputes: If disputes cannot be agreed between the insured and the insurer, the following methods can be used to deal with complaints or disputes: 1. In relation to disputes concerning policy or claim rejection disputes, the dispute can be referred to the short term or long term, or ombudsman. 2. In relation to disputes concerning the Financial Advisory and Intermediary Services Act 2002 FAIS Act, the dispute can be referred to the FAIS ombudsman. 3. Otherwise, disputes can be litigated in a court or arbitrated. Under the Policyholder Protection Rules, a personal lines policy cannot provide that disputes must be resolved by arbitration[281].

Reinsurance disputes: Formal disputes between insurers and reinsurers are very rare. A **compromise is** usually sought for business or commercial consideration. If reinsurance is not

[280] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).
[281] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).

resolvable by agreement, court litigation or arbitration is undertaken. **There is a very limited body of South African law dealing with reported reinsurance judgements.** Under the Policy Holder Protection Rules, a personal lines policy cannot provide the disputes must be resolved by arbitration. Insurance and reinsurance contracts of a registered South African insurer are governed by South African Law, Choice of Forum and Choice of Venue.

Insurance Institution in South Africa: The Insurance Bill introduces a new solvency regime called the Solvency Assessment and Management Project and has been updates to reflect the revised Insurance Core Principles by the International Association of Insurance Supervisors (IAIS). The Twin Peaks approach entails creating a Prudential Regulator housed in the South African Reserve Bank (SARB) and transforming the Financial Services Board into dedicated market conduct regulator.[282] **This is unique feature which is not seen in other domains it's a hybrid of regulatory authorities but in experimental stage.**

Both regulators will jointly supervise Anti-Money Laundering initiatives in the Twin Peaks programme. It will maintain the soundness of **regulated financial institutions** in **Insurance Banking and financial conglomerates.**

Supra Regulatory Structure in South Africa: The idea behind Twin Peaks Legislation is to provide twin regulators for all financial companies. The role of two regulators is one in charge of prudential supervision and other covering market conduct. It's a shift from fragmented regulatory approach. Banc-assurance where selling insurance policy through banks. In South Africa is another major reform which being undertaken.

The Financial Services Laws General Amendment Act 2013 (Omnibus Act): This act aligns with the: 1. Companies Act 2008; 2. Income Tax Act 1962; 3. The Banks Act 1990; and 4. The Financial Institutions (Protections of Funds) Act 2001.

Part D: Re-insurance Regulatory Framework in India

India: The concept of insurance was prevalent in India since ancient times. It was in the form of community pooling of resources. English traders brought the modern English insurance

[282] See also: http://global.practicallaw.com/15052026 (Last visited on 10/08/2015).

law system in India[283]. After independence the nationalization of insurance was brought in order to protect the premium capital. After 1990 insurance market opened for private participation. The transition of the economy wanted the market forces to play a decisive role. This was done to provide better coverage to citizens and flow of long term financial resources. Insurance is repository of trust; regulation was done to invest the funds in social structure and development of infrastructure. The regulation of insurance requires a paradigm shift from just supervisory and monitory role to development role so that the insurance business promotes socio-economic growth.

Historical Development of the Insurance Institution in India: The concept of insurance has been prevalent in India since the ancient times amongst Hindus. It talked about pooling of resources to be redistributed at times of calamities. It's a form of 'community insurance'. But present modern insurance law has evolved from English Law system.

Seven marine insurance companies, of which none is in existence today, were started between 1797 and 1810, in Calcutta. The rules in English law were applied in India with little variations to adapt them to Indian circumstances. In 1818 we saw the establishment of Oriental Life Insurance Company in Calcutta but it failed in 1834[284]. In 1829 Madras Equitable was established. In India the known history of life insurance commenced in 1871 with the starting of 'Bombay Mutual' followed in 1874 by the 'Oriental,' both in Bombay. Indian Life Assurance Act (Act VI) of 1912 was passed on the lines of the English Assurance Companies Act of 1909[285].The Government of India under this Act started publishing returns of life insurance companies in India since the year 1914. The first general insurance company Triton Insurance Company Ltd was established in 1850 in Calcutta. This company was established by a British national. The first general insurance company by an Indian National was in 1907 with the name of India Mercantile Insurance Company Ltd.

Foundation of the Insurance Institution in India: In 1934, Sri Sushil C. Sen was appointed as special officer to investigate and report on reform of insurance law. A committee was

[283] See also: Unpublished Research Paper Submitted to University of Petroleum and Energy Studies on 2013/04/30.
[284] See also: Unpublished Research Paper Submitted to Amity University on 2012/08/13.
[285] Prof. K.S.N. Murthy and K.V.S Sarma, *Modern Law of Insurance In India*, Third Ed. 1995, N.M. Tripathi Private Limited, Bombay, Chapter .1, Pg. 2-3. Shailaja Lall; Foreign Insurers in India: By Amarchand & Mangaldas & Suresh A. Shroff & Co. www.lexmundipublication.com (Last visited on 10/08/2014). See also : Neeraj Tuli & Celia Jenkins; The International Comparative Legal Guide to: Insurance & Reinsurance : 2012 : A Practical cross border insight into insurance and reinsurance law; www.iclg.co.uk.com, See also: http://www.nishithdesai.com/ResearchPapers/

formed in 1936 under the Chairmanship of Sri. N.N. Sircar. He was appointed to examine the report of the special officer. In 1937, a draft bill was introduced and in 1938, the Insurance Act was passed. The Act provided for a uniform control by Government over all insurers, Indian as well as foreign, as a result of which several foreign offices discontinued their business in India.

Nationalist firmness of Insurance Institution in India: In 1945 the Government appointed a committee under the chairmanship of Cowasji Jehangir which condemned the malpractices in the matter of investigating the funds available with the insurers.

The genesis of nationalisation of life insurance is related to the document produced by Mr. H.D. Malaviya called 'Insurance Business in India.' The then Finance Minister C.D. Deshmukh supported this document for nationalization of the insurance business in India. This lead to the regulation of investments and the Insurance Act was also amended several times.

An informal committee was again appointed under Sri S.R. Ranganathan and this reviewed the entire insurance law and submitted its report on the basis of which the Insurance Amendment Act, 1950 was passed.

The life insurance business was first nationalised in 1956 by passing Life Insurance Corporation Act, 1956 conferring on it the exclusive privilege of carrying on life insurance business in India except to the extent otherwise expressly provided in the Act.

Indian Constitution and Insurance: The Constitution of India is federal in nature in as much there is division of powers between the centre and the states; Insurance is included in the Union List, wherein the subjects included in this list are of the exclusive legislative competence of the Centre. The Central Legislature is empowered to regulate the insurance industry in India and hence the law in this regard is uniform throughout the territories of India.[286] Take for e.g. General Insurance Business (Nationalization) Act 57 of 1972; the preamble of the act says that the act, 'is to provide for the acquisition and transfer of shares of Indian Insurance Companies and under takings of other existing insurers in order to secure the development of general insurance business in the interests of the Community and to insure that the operation of the economic system doesn't result in the concentration of wealth and means of production to the common determinant as required by Article 39 (C) of the

[286]Seealso:http://manupatra.com/roundup/338/Articles/HISTORY%20OF%20INSURANCE%20LEGISLATION.pdf, See also: http://irdaindia.org/ar/IRDA_Eng.pdf

Indian Constitution'[287]. Also Article 19 (1) (g), Article (6), Article 21, Article 38 (1) and Part XIII Article 301 – 307 strengthen this philosophy but none of these are absolute or uncontrolled liable to be curtailed by laws.

Reinsurance Institution in India: Along with the life, fire and marine, other insurance like motor vehicles aviation, burglary and other liability insurance also developed. All reinsurance business was in the hands of the foreign firms and the first Indian reinsurance concern namely the Reinsurance Corporation of India was formed in1957 with a view to stop the heavy drain on our foreign exchange. After the nationalisation of the life business the Insurance Act, 1938 applied mainly to the general insurance. A Tariff Advisory Committee was enacted to fix control and regulate the rates of premiums, conditions of policies etc. An Ordinance was promulgated by the President of India on 13/05/1971 which was replaced by the General Insurance (Emergency Provisions) Act, 1971. Finally, in 1972 General Insurance business was also nationalised by setting up a Government corporation called General Insurance Corporation with four subsidiary companies for carrying on the general insurance business.[288] The four companies were: National Insurance Company Ltd. With base in Calcutta; The New India Assurance Company Ltd. With base in Mumbai; The Oriental Insurance Company Ltd. With base in New Delhi and The United India Insurance Company Ltd with base in Madras. It became famous with initials 'NOUN'.[289] Reinsurance is instrument of risk transfer and risk financing. Indian Reinsurance program is guided by following objectives such as maximization of retention[290] within the country, developing adequate capacity, securing the best possible protection for the reinsurance costs incurred & simplifying the administration of business.[291]

Brief Snippets of Malhotra Committee Report: The Malhotra Committee submitted its report in 1994. Some of the major recommendations made by it were as under:

- The establishment of an independent regulatory authority (akin to Securities and

[287] See also: "Cross Reference Citation Name: "KISHAN PRAKASH SHARMA & ORS. v. UNION OF INDIA & ORS.", Financial Law Reporter, Sept 17, 2011, Issue. See also: http://irdaindia.org/ar/IRDA_Eng.pdf
[288] See also: Unpublished Research Paper Submitted to Symbiosis International School on 2012/06/08. See also: http://irdaindia.org/ar/IRDA_Eng.pdf
[289] See also: Unpublished Research Paper Submitted to NALSAR University of Law Hyderabad on 2015/05/11. See also: http://irdaindia.org/ar/IRDA_Eng.pdf
[290] Sec. 2(h) of General Insurance- Reinsurance) Regulation, 2000 defines 'retention' as the amount which an insurer assumes for his own account. In proportionate contracts, the retention may be a percentage of the policy limit. In excess of loss contracts, the retention is an amount of loss.
[291] Regulation 3, (General Insurance- Reinsurance) Regulations, 2000.

Exchange Board of India);[292]

- Allowing private sector to enter the insurance field;
- Improving of the commission structure for agents to make it effective instrument for procuring business specially rural, personal and non-obligatory lines of business;
- Insurance plans for economically backward sections, appointment of institutional agents;
- Setting up of an institution of professional surveyors/loss assessors;
- Functioning of Tariff Advisory Committee (TAC) as a separate statutory body[293]
- Investment on the pattern laid down in sec.27
- Marketing of life insurance to relatively weaker sections of the society and specified proportion of business in rural areas;
- Provisions for co-operative societies for transacting life insurance business in states[294]
- The requirement of specified proportion of the general business as rural non traditional business to be undertaken by the new entrants;
- Welfare oriented schemes of general insurance;
- Technology driven operation of General Insurance Corporation of India (GICI);
- GIC to exclusively function as a rein surer[295]and to cease to be the holding company
- Introduction of unlinked pension plans by the insurance companies; and
- Restructuring of the insurance industry.
- Government stake in the insurance companies to be brought down to 50%[296].
- Government should take over the holdings of GIC and its subsidiaries so that these subsidiaries can act as independent corporations.

[292] Currently, IRDA is the statutory body which monitors and regulates insurance business in India. See, IRDA-1999.
[293] KPN Committee report also recommended similar guidelines on the provisions of the Insurance Act,1938. Available at: www.irdaindia.org/kpncommittee ; www.lawcommissionofindia.nic.in/consult_papers (Last visited on 19/04/2014)
[294] Sec.8 (a) which defines 'Insurance Cooperative Society', Inserted by Insurance Amendment Act,2002 (42 of 2002).
[295] General Insurance Business (GIB), (Nationalization) Amendment Act, 2002.
[296] See also: Research Paper Submitted to Management Development Institute on 2009/06/13.

- Private companies with a minimum paid up capital of Rs.1billlion should be allowed to enter the industry and no company should deal in both life and general insurance through single entity.
- Controller of Insurance should be independent (free from Finance Ministry)
- GIC and its subsidiaries are not to hold more than 5% in any company(current holdings be brought down)

The recommendations of Malhotra Committee had been implemented to a large extent in the Indian Legal framework which had substantial impact on insurance sector performance in recent years. The much awaited reform has facilitated the expeditious path of socio-economic development & reform in India.

Regulatory formation of the State-owned Insurance Institution in India: The Indian Insurance sector has significantly developed after the government opened it to private participation in 1999, particularly after the enactment of the Insurance Regulatory and Development Act-1999 (IRDA Act here in after) and the setting up of the IRDA.

Only an Indian Insurance company that is registered with IRDA can undertake insurance business in India. Registered Indian Insurers can undertake life insurance business, general insurance business, and/or health insurance business in accordance with the terms of their registration. [297]

In order to secure registration an applicant must among other formalities have a minimum paid up capital of Rs. 1 Billion and restrict any direct or indirect foreign investment in an Insurer (or Reinsurer) to 49%. Presently there is only one state owned and operated Reinsurer the General Insurance Corporation.

Oversees none admitted Insurers cannot write direct insurance business in India. Indian residents are also prohibited from purchasing falls with a general or specific approval of the Reserve bank of India.

Indian (General Insurance- Reinsurance) Regulation: 2000: defines '*Cession as the unit of insurance passed to a reinsurer by the insurer which issued a policy to the original insured and accordingly, a cession may be the whole or a portion of single risks defined policies or*

[297]Seealso:http://tuli.biz/docs/Tuli_Co_International_Comparative_Legal_Guide_to_Insurance_Reinsurance_March_2012.pdf

defined divisions a of business as agreed in the reinsurance contract'.[298]

Section 2 (7A) of the Insurance Act, 1938 ("Insurance Act") defines an 'Indian insurance company' to mean any insurer being a company: 1. which is formed and registered under the Companies Act, 1956; 2. In which the aggregate holdings of equity shares by a foreign company, either by itself or through its subsidiary companies or its nominees, don't exceed twenty six percent paid up equity capital of such companies or its nominees don't exceed twenty six percent paid up equity capital of such Indian insurance company; 3. Whose sole purpose is to carry on life insurance business or general insurance or reinsurance business. Such a company must be duly registers with the Insurance Regulatory and Development Authority (IRDA).[299]

Additionally, the Insurance Act also separately defines the term 'insurer' as follows: 1. Any individual or unincorporated body of individuals or body corporate incorporated under the law of any country other than India, carrying on insurance business not being a person specified in sub-clause (c) of this clause which:1. Carries on that business in India, or; 2. Has his or its principal place of business or is domiciled in India, or; 3. With the object of obtaining insurance business, employs a representative maintains a place of business, in India; a. Any - body corporate [not being a person specified in sub-clause (c) of this] carrying on the business of insurance, which is a body corporate incorporated under any law for the time being in force in India; or stands to any such body corporate in the relation of a subsidiary company within the meaning of the Indian Companies Act, 1913 (7 of 1913), as defined by sub-section (2) of section 2 of that Act, and; b. Any person who in India has standing contract with the underwriters who are members of the Society of Lloyds whereby such persons is authorised within the terms of such contract to issue protection notes, cover notes, or other documents granting insurance cover to others on behalf of the underwriters. But, doesn't include a principal agent chief agent special agent or an insurance agent or a provident society as defined in Part III; c. In other words, even if an entity qualifies as an insurer it must be duly registered 'Indian insurance company' in order to carry on insurance business in India. Further, Section 101A of the Insurance Act defines an 'India reinsurer 'as an Indian insurance company which has been guarantee a certificate of registration by the

[298] See, Regulation 2(c) (General Insurance- Reinsurance) Regulations, 2000.
[299] See also: http://www.lexmundi.com/images/lexmundi/practicegroups/insurance/surveys/india.pdf

IRDA to carry on exclusively reinsurance business in India.[300]

The regulatory framework for insurance/reinsurance activities primarily governed by the legal framework provided under the: 1. Insurance Act 1938 (Insurance Act); 2. IRDA Act;

The regulations issued by the IRDA under these statutes: 1. The Life Insurance Corporation Act 1956 governs the life Insurance corporations. Unlike, other Indian life insurers the government guarantees all policies issued by the Life Insurance Corporation. 2. The General Insurance Business (Nationalization) Act 1982 governs the four public sector general insurance companies.

Finally, the Marine Insurance Act 1963 and the Motor Vehicles Act 1988 also regulate insurance business in India.

Regulatory Structure of State Owned Insurance Institution in India: The IRDA has issued numerous regulations guidelines and instructions to regulate and promote industry and to protect the interest of policyholders: 1. IRDA (Registration of Indian Companies) Regulations 2000; 2. IRDA (Insurance Advertisement and Disclosure) Regulations 2000; 3. IRDA (Assets Liabilities and Solvency Margin of Insurers) Regulations 2000; 4. IRDA (Investment) Regulations 2000; 5. IRDA (Preparation of Financial Statements and Auditors Report of Insurance Companies) Regulations 2002; 6. IRDA (Protection of Policy holders Interest) Regulations 2002;7. IRDA (Guidelines on Advertisement, Promotions & Publicity of Insurance Companies and Insurance Intermediaries 2007; 8. IRDA Corporate Governance Guidelines for Insurance Companies 2009;9. IRDA Guidelines for Grievance Redressal by Insurance Companies 2010; 10. IRDA (Sharing of Database for Distribution of Insurance Products) Regulations2010; 11. IRDA (Issuance of Capital by Life Insurance Companies) Regulations 2011;12. IRDA (Scheme for Amalgamation and Transfer of General Insurance Business) Regulations 2011; 13. IRDA Guidelines on Distance Marketing of Insurance Products 2011;14. IRDA Guidelines on Outsourcing of Activities by Insurance Companies 2011; 15. IRDA General Insurance –Reinsurance Regulations 2000; 16. IRDA Life Insurance Reinsurance Regulations 2000; 17. IRDA Guidelines on Insurance and Reinsurance of General Insurance Risks 2006; 18. IRDA Guidelines on Cross Border Reinsurers 2012[301].

Similarly Reserve Bank of India (RBI) has also issued the following regulations to control

[300] See also: http://www.lexmundi.com/images/lexmundi/practicegroups/insurance/surveys/india.pdf
[301] See also: http://uk.practicallaw.com/65046467 See also: Unpublished Research Paper Submitted to Symbiosis International University on 2014/05/02.

foreign exchange transactions in Indian insurance activities:1. RBI Memorandum of Exchange Control Regulations relating to Life Insurance in India2003; and 2. RBI Memorandum of Exchange Control Regulations relating to General Insurance in India 2002;

An interesting point to note that;

The contract of insurance has not been specifically defined by any statute. Indian courts have relied heavily on Common Law Principles.

Contract of Insurance: A Contract of insurance is a contract under which one party (insurer) promises in return for money consideration (premium) to pay to the other party (insured) money or money's worth on the happening of an uncertain event less adverse to the interest of the insured.[302]

(*Prudential Ins. Co. vs. Inland Revenue Commrs*, (1904) 2 KB 68 relied on by the Bombay High Court in the case of *Babu lal Kanji vs. Commissioner of Income Tax*, Bombay; AIR 1947 Bom. 59.

The insured must have an insurable interest in the property, life or liability which is the subject of the insurance (*M. Swaminathan vs. C.K. Jayalakshmi Amma and Ors.* (1989) 66 Comp Cas 503 (Ker.).

The four essentials of a Contract of Insurance are: (Vikram Greentech (I) Ltd. New India Assurance Co. Ltd. (2009) 4 MLJ 811 (SC):

- Definition of risk;
- duration of risk;
- premium; and
- amount of insurance.

Reinsurance is used where the loss likely to be sustained under any contract of insurance will make heavy inroads on the insurer's funds or generally as a way of spreading the excess of risk over what the insurer is capable of retaining.

Like **contract of insurance; contract of reinsurance is currently not defined under any statute** although it is proposed to define under the Insurance Bill as insurance of all or part of one insurer's risk by another who accepts the risk for a mutually acceptable premium (clause

[302] See also: http://uk.practicallaw.com/65046467

16B, Insurance Bill) In *General Insurance Corporation of India vs. Assistant Commissioner of Income tax* (2009) 125,TTJ (Mum) 779 (GIC Case), the court relied on a decision of a **US Court** to intercept the meaning of a reinsurance contract ....." *contract of reinsurance is a contract whereby one for a consideration agrees to indemnify another ...under a risk the latter has assured... as insured of a third party.....*" [303]

Regulatory application of State Owned Reinsurance Institution in India: In general insurance and health policies can transfer risk by obtaining reinsurance subject to the following limits. 10% of the total reinsurance must be placed with the local reinsurer, General Insurance Corporation (obligatory cession) The risk may be reinsured with a foreign reinsurer registered with the IRDA which is domiciled in a country that has entered into double taxation avoidance agreements or tax information exchange agreements with India. For the immediately preceding 5 years the foreigner must have a rating of at least BBB (with Standard & Poor) or equivalent rating from any other international rating agency. [304]

Insurers can place reinsurance business with other reinsurers only after obtaining the IRDA's approval. A maximum of 10% of the total reinsurance premium ceded outside India can be placed with any one reinsurer, complying with the above condition. If this limit's to be exceeded the insurer must obtain IRDA approval giving reasons for the cession.

The insurer must offer an opportunity to other Indian insurers (including GIC) to participate in the **risk transfer placing outside India**. The GIC must retrocede (that is, reinsure the reinsured risk) at least 50% of the obligatory cessions that it receives to the ceding insurers after protecting the portfolio through suitable excess of loss covers. This retrocession must be at the original terms of the reinsurance. In addition, an overriding commission to the GIC which cannot exceed 2.5% applies. The retrocession to each ceding insurer must be in proportion to its cessions to the General Insurance Corporation. [305]

Insurers can place reinsurance policies with Lloyd's syndicates subject to compliance with the above conditions and taking care limit placements with the individual syndicates to share suitable to the syndicate capacity. Insurers must regularly file their reinsurance programme and copies of the treaty slips with the IRDA. The **insurer must retain the maximum amount of premium earned in India** that is appropriate given its financial strength and

[303] See also: http://uk.practicallaw.com/65046467
[304] See also: http://uk.practicallaw.com/65046467
[305] See also: http://uk.practicallaw.com/65046467

volume of business. It **can transfer risk through reinsurance**, subject to the following **limits.** Insurers can place reinsurance business with the other reinsurers only after obtaining the IRDA's **approval.** [306]

Prior IRDA approval is required for any programme of reinsurance which is on original premium basis. No life insurer can have a reinsurance treaty arrangement with its promoter company or its associate group/company except on terms which are commercially competitive in the market with the prior approval of the IRDA (which will be final and binding). Insurers must regularly file their reinsurance programme and copies treaty slips with the IRDA. The operating restrictions if any, and the authorisation or licensing. 1. An Indian insurance company, registered with the IRDA under section 3 of the Insurance Act. 2. A cooperative society registered under the Cooperative Societies Act1912.

The sole purpose of insurance must be to carry on insurance business. Fronting arrangements where the licensed insurer (ceding company) obtains regulatory approval for an insurance product and cedes all or most of the risk and underwriting to a foreign reinsurer is not permitted in India, Branch offices of foreign insurers and reinsurers are not permitted to place business in India.

Insurance brokers are regulated by the IRDA (Insurance Brokers) Regulations 2002 (Broker Regulations) and the Insurance Act. An insurance broker acts as an agent of the prospective insured and arranges suitable insurance cover from Indian insurance companies on behalf of his clients. An insurance broker can operate as a direct broker, a reinsurance broker or a composite, but can only on insurance broking business.

A Broking company must satisfy minimum capital requirements of INR 5 million for direct insurance brokers; INR 20 million for reinsurance brokers; and INR 25 million for composite brokers. Foreign direct investment in a broking company is limited to 26% (49%). The IRDA usually grants a broking licence for a period of three years.

Similarly Surveyors and Loss Assessors are technical experts appointed by the insurer to investigate and verify claims and assess loss. Insurance Surveyors and Loss Assessors are regulated by the Insurance Act and IRDA (Insurance Surveyors and Loss Assessors (Licensing, Professional Requirements and Code of Conduct Regulations 2000 (Insurance Surveyor Regulations).

[306] See also: http://uk.practicallaw.com/65046467

The IRDA approval is required for any issue or transfer of shares by an insurance broker (including any renunciation of rights by the existing shareholders) where, after the issuance or transfer the total paid up holding of the transfers' is likely to exceed. At the end of every financial year must prepare a balance sheet and a profit and loss account concerning insurance business transacted in India (Insurance Act and Solvency Regulations). This must be submitted to the IRDA and disclosed by the insurer as part of the public disclosure requirements.

Every life insurer must on a yearly basis, instruct an actuary to investigate and report (in the prescribed form) on the financial condition of the life insurer's business, including a valuation of its liabilities. Every insurer must ensure compliance with the requirements relating to investments that they must maintain or which are prohibit (Insurance Act, IRDA (Investment) Regulations 2000, and relevant circulars and guidelines.

Every insurer must have in place proper and effective mechanisms to address the complaints and grievances of policyholders that are in compliance with the appropriate guidelines (IRDA Guidelines for Grievance Redressal by Insurance Companies 2010 (Grievance Redressal Guidelines) and IRDA (Protections of Policy Holders Interest) Regulations 2002 (Protection of Policyholders Regulations).[307]

Every insurer reinsurer intermediary or insurance agent must among others (IRDA Insurance Advertisements and Disclosure) Regulations 2000. Every insurer reinsurer intermediary or insurance agent must follow recognised standards of professional conduct by the Advertisement Standards Council of India and Discharge its functions in the interest of the policy holders. All insurers who begin to carry out insurance business after the start of the IRDA Act must comply with certain requirements until their sixth financial year IRDA (Obligations of the insurers to the Rural and Social Sectors) Regulations 2002.[308]

General insurance is classified into marine insurance, non marine insurance and reinsurance as per (RBI Memorandum of Exchange Control Regulations relating to General Insurance in India 2002 GIM).

As reinsurance policy is also a contract of insurance it is governed by the same **Doctrines** such as Insurable Interest, Subrogation and Indemnity. The parties to the reinsurance contract must observe Utmost good faith (uberrimae fides) at all times.

[307] See also: http://uk.practicallaw.com/65046467
[308] See also: http://uk.practicallaw.com/65046467

Tariff Advisory Committee: The Tariff Advisory Committee (TAC) a statutory body established under section 64 U of the Insurance Act, regulates the policy wordings and other terms of policies of general insurance relating to the fire, marine (hull) motor, engineering all industrial risks and workmen compensation. There are conditions which the insured must observe when the loss occurs, to the insurer will not be liable for the claim, even though the policy otherwise covers the loss. For e.g. give notice of loss to the insurer immediately on its occurrence; render all assistance to the insurer in the investigation of the cause of loss.

Both **facultative and treaty insurance are common** in India.

Facultative reinsurance: Facultative reinsurance is usually sought for large risk liability business and other non-conventional kind of business where local capacity is sufficient. It can be in the form of either, Pro-rata or proportional reinsurance; this provides a specified proportional division of premiums and losses between the cedant and the reinsurer.

Excess of loss reinsurance: The reinsurer responds to a loss only when the loss exceeds a specific amount. Treaty insurance between the ceding primary insurer and the reinsurer are through written and agreed treaties. The general conditions for reinsurance policies are fairly uniform for all treaties, but special conditions depend on the needs of the contracting parties and the type of underlying insurance.

Quota share (Proportional) treaty arrangements: These are not generally found in except for the obligatory 10% cession to the General Insurance Corporations & Surplus and excess of loss treaties.

These are commonly found clauses in India:

- Follow the Fortunes;
- Follow the settlement;
- Cut through Clauses;
- Claims Control;
- Claims Co-operation.

The Duty of Utmost Good Faith is the fundamental basis of all contracts of insurance. It places a positive duty on the insured to voluntarily disclose, accurately and fully, all facts material to the risk being proposed, whether this is requested or not. A material fact is one

which would influence the judgment of an insurer in deciding whether to underwrite risk. The duty of disclosure of material facts is not confined to only those facts which are in the knowledge of the insured. It also covers facts which the insured ought to have known as a prudent man, irrespective of whether the insured thinks those facts to be material or not. Subrogation is also implied into insurance contracts.

It is based on common law principles and set out in Section 79 of the Marine Insurance Act 1963.

"Subrogation can be defined as the transfer of all the rights and remedies of the insured against a third party to the insurer, when that insurer has indemnified the insured in respect of a loss." It occurs automatically and doesn't depend on a formal transfer of rights. An insurer exercising a right of subrogation against the third party must do so in the name of the insured and can only recover up to the extent it has indemnified the insured.

The TAC continues to regulate the wording for fire, engineering and motor risk.

A policyholder can nominate a third party before the date the policy matures to receive the money secured under a life insurance policy in the event of the policyholder's death. This nomination can be made by an endorsement on the policy, if not already incorporated in the policy itself, and must be communicated to the insurer and registered in his records[309].

Where no time period is prescribed, **The Limitation Act 1963** prescribes a period of *three years for contracts of insurance* after which the insured is prohibited from submitting any claims with the insurer. A third party or original policy holder can enforce the reinsurance contract only if the reinsurance contract contains a cut through clause which is triggered in the event of the cedant insolvency.

An insurer's breach of an insurance policy is considered to be grievance. Every insurer must have a system and procedure for receiving registering and disposing of grievances in each of its offices (Grievance Redressal Guidelines). Section 53 to 58 of the Insurance Act, deals with the winding up of an insurance company; A distressed or insolvent insurance or reinsurance company or any entity providing insurance related services can be ordered to be wound up in accordance with the provisions of the Companies Act. [310]

Special rules provide for the calculation of taxable income for insurance companies engaged

[309] See also: http://uk.practicallaw.com/65046467
[310] See also: http://uk.practicallaw.com/65046467

in the business of Life Insurance and Non-Insurance business (Sections 44 and 115 B with First Schedule, Income Tax Act, 1961). One special procedure concerns the insurance ombudsman who can receive and consider claims from any person who has grievance against an insurer. Arbitration is the preferred dispute method used to settle reinsurance claims.

The reinsurance contract generally includes an arbitration clause, under which any party to the reinsurance contract can, in the event of a dispute.

Where *both* the parties are Indian an agreement to absolutely oust the jurisdiction of Indian Courts shall be unlawful and void being against 'public policy.'[311] Where *one* party is Indian, the choice of forum shall be governed by the terms of the Contract.

Banc-assurance: The IRDA has issued the Exposure Draft on IRDA (Licensing of Banc-assurance Agents) Regulations 2011, (Banc -assurance Regulations). A banc-assurance agent shall not tie up with more than one life one non life and one stand alone health insurance company in any of the states, in addition to one specialised insurer.

Complex web of Regulatory framework of Insurance Institution in India: The following insurance covers are example of those that are compulsory be Central Law: 1. Public liability Insurance Act 1991: (accidental cover for persons handling hazardous substances and environmental issues). 2. Motor Vehicles Act 1988 (compulsory third party insurance); 3. Deposit Insurance and credit guarantee Corporation Act 1961: (insurance to be taken by the banks functioning in India : DICGC is an RBI body) 4. IRDA Brokers Regulation 2002: (E & O insurance) 5. Carriage by Air (Amendment Act) 2009: (requires parties to maintain adequate insurance covering their liabilities that may arise) 6. Persons with Disabilities (Equal Opportunities Protections of Rights and Full Participation) Act 1995 : (insurance scheme for employees with disability) 7. Personal Injuries (Compensation Insurance) Act 1963: (employer's liability for workers sustaining injuries).8. Employees State Insurance Act 1948: (for insurance to employee of state in case of sickness maternity and employment to employees) 9. Payment of Gratuity Act 1972 (insurance from LIC for gratuity payment to employees). 10. War Injuries (Compensation Insurance) Act 1943: (for worker men sustaining injury); 11. Marine Insurance Act 1963: (on lives of the crew members); 12. Merchant Shipping Act 1958 : (on the lives of crew members) ;13. Inland Vessels Act 1925;

[311] TDM Infrastructure Private Limited vs. UE Development India Private Limited, 2008 (8) SCALE 576.

(Insurance of mechanically propelled vessels). [312]

Can an Insured sue a Reinsurer? The IRDA (Protection of Policy holders Interests) Guidelines, 2002; There is no specific provision permitting this but nothing to prevent an insured attempting to sue a Reinsurer for example in tort, if the circumstances are such that the Reinsurer has assumed liability. The other exceptions where an Insured may bring a direct action against a Reinsurer would be if the contractual arrangements permitted it, for example a "cut through' clause although no such clause has been tested in the Indian Courts so far.

An insurance contract is one of the utmost good faith and the insurers are entitled to a fair presentation of the risk prior to inception. If there has been a misrepresentation or non-disclosure of a material fact then an insurer may avoid the policy *ab initio*. The Evidence Act 1872 protects communications between a legal advisor and his client. The Indian Arbitration and Conciliation Act 1996 are based on the UNCITRAL model law.

5.2 Critical Comments on Reinsurance in the Global South

5.2.1 Reflections of Applied Comparative Law: "*Comparative Law is the academic study of the legal systems and analysing the constituting elements*"[313]. Comparing insurance law of different legal jurisdiction and regulation is a paradox. It's not just identifying similarities and differences but also building bridges. It's practically discovering the historical roots of the insurance law which gives us a larger picture.

Legal science is at the cross juncture of social science and humanity. As we have seen in the previous chapters, law is deeply rooted in philosophy, morality and ethics which have shaped the concepts of law. The concepts of law in different legal jurisdiction also have reflection of history which can be seen on the statutes, case law and codification which were enacted with passage of time. Legal reasoning is being applied in the form: deductive logic or inductive technique.

Legal concepts have to be understood as building blocks with current legal situations and its function in the national legal system. The building blocks are the sources of law. Sources of law work differently in different jurisdiction: In Civil law it relies more on Statutes to

[312] See also: http://uk.practicallaw.com/65046467

[313] Montesquieu Comparative Approach(The Spirit of Laws 2nd Ed. 1752) Translated by Thomas Nugent, Chapter XIII of Book XXIX)

establish a legal situation while in the Common law it relies on judicial precedent to determine the content.

My approach of comparative law is to see it as an instrument of knowledge. Comparative law is to be seen as evolution of taxonomic science and its contribution in harmonization. There is always tension between tradition and modernity and how majority of citizen perceive in each legal domain.

Multinational companies have challenged this new comparative legal system. Linguistic constrain hampers the legal research as it's difficult to interpret the law correctly.

Comparative legal study also has lots of influence of culture. There is cultural risk. Therefore social understanding of the legal system is required. The rule existing on paper and how it applies is difficult to interpret. The balance is required between functional approaches with legal reasoning. A comparative legal system is always at juxtaposition with functionalism. It also requires studying interactions between legal institution and provisions of the law.

5.2.2 Some Critical Comments: Carrying forward my debate from the previous chapters we have seen that marine insurance is the progenitor of insurance. Insurance is a business which is based on trust and expectation. It is a surprise then to note that insurance became a trade that spanned the breadth of nations, cultures, religions, ethnicities, and politics from the nineteenth century.

Traders brought the insurance law system in Brazil. Brazilian Insurance industry initially only catered to need of coffee industry and maritime insurance for export of coffee. But after coming of nationalist government to power it intervened in the insurance market and checked adverse balance of payment. The main objective was to avoid the drain of foreign exchange. Brazil follows a civil law system and it has its reflections in its definition of contract law. In English law system we have insurable interest but in Brazilian contract law it serves the 'risk' from the insured to the insurer instead of insurable interest. It can be said that history and culture has influenced the concept of insurable interest when concepts of law were being transplanted in Brazil. In order to operate in Brazil all the companies need to have a valid permit because historically European traders have divided Brazil into different colony for their trade operation. This permit practice is still being followed. I have observed strict liability is not part of civil law system but Strict Liability applies under Brazilian Law because new political economy or corporate entities have transplanted the 'polluter pays

principle' in Brazilian civil law system. In Brazil Civil Law there are two types of time bar mechanisms: prescriptions (prescricao); and pre-emption (decadencia) which is modified version of Limitation Period of Common law system as it bars the filling of law suits. Going through pages of history in Brazil I have also seen there was trade of Slave and traders purchased and did insurance for them.

Similarly we have seen foreigners laid the foundation of insurance in China. But after coming of nationalist government the Communist system came in China. According to Confucianism system the concept of insurance is capitalist and it has no place in communist society but this perception changed with passage of time. Life insurance is considered as bad omen in Confucianism but gradually it was transplanted by the corporate entities. Legal drafting and insurable interest have been influenced by common law system. Insurable interest is recognised legally and seen as transfer of risk. As I have discussed in the chapter that Utmost Good Faith doesn't exist in legal domain of China but corporate entities transplanted the Caveat Emptor (Let the Buyer Beware) in China's legal domain. Australian legal jurisprudence has also influence the China's legal jurisprudence. Due to non-existence of Utmost Good Faith in China Common law doctrine of Cut through Clause is not effective in insurance dispute. Therefore parties try to settle disputes through arbitration instead of litigation. There is no limitation period for insurance dispute in China. Date on the documents acts as validity and dispute is settled through arbitration.

Similarly English Common law system has lots of influence on South African insurance law. U.K has huge investment in South African insurance system therefore there are no particular requirements concerning the ownership or control of insurance and also no restriction concerning the identity or domicile of a shareholder when investment are made in the insurance companies. As I have discussed a unique feature which is not seen in other legal domains it's a hybrid of regulatory authorities but it's still in experimental stage. We see conglomerates of Insurance, Banking and Financial (Capital) in South Africa.

Modern Insurance law in India has evolved from English Law system. We follow Common law system.

As I have discussed in my previous chapter regulation is a heavily contested with multiple academics interpretations. It can be rightly said regulation is state intervention in the economic affairs of the market.

In cross border regulation we have seen how the corporate entities place enormous pressure on the state to confront to the dictates of the market. Similarly if state imposes high cost on domestic industry they relocate to favourable regulatory jurisdiction where law is not much settled and they influence the legal jurisprudence.

The debate still continues that there is lack of qualified human capital which is a huge constrain in emerging economies.

Regulators face a dilemma in supervision of reinsurance in order to protect the financial security of reinsurance. Regulation of reinsurance needs proper structured framework taking into account the individual market characteristics and individual legal system. Reflection on comparative law in different legal jurisdiction has given us a better picture.

5.3 Conclusion: The point made in the above illustration is that 'State' must develop its own 'legislative framework' based on its own 'socio-economic and political situation'. It should include its own constitution, legal framework, culture, tradition, scientific knowledge, technology and industrial capacities. It should also include it financial and human resources. There is enormous range of requirements and rules which are necessary in regulating insurance/reinsurance business. The international community and law have to play a constructive and harmonious role in development of insurance/reinsurance in emerging economies.

The framework of regulation of insurance/reinsurance should be properly structured and take into account market characteristics and legal systems. It also needs to enhance the cooperation among the regulators in different jurisdictions.

We have to understand that there is no single market structure and regulatory system that works best for all economies or legal jurisdictions. The main goal of the financial regulation is to minimize the systemic risk and harmonize the regulations across jurisdictions.

Chapter 6

Re-Insurance Industrial Overview and Politics of International

Part A: Aviation Risk and Re-insurance

Part B: Nuclear Risk and Re-insurance

Part C: Politics of International in the Global South

Some Critical Comments on Politics of International

Conclusion

Chapter 6

Reinsurance Industrial Overview and Politics of International

Part A: Aviation Risk and Re-insurance

Introduction to Aviation Insurance: Air law is basically a series of rules and regulation which govern the use of airspace. In this domain airlines are the service provider. Risk is a feature of air law as airlines are involved in transportation of goods and passenger. Air insurance is still regulated by conventions which do not fulfil the requirements of the industry while risk exposure has grown manifold. To underwrite risk in airline industry is beyond the scope of a single insurer.

What should be role of State in aviation industry? How is the issue of capital formation to be addressed? Is market capable to survive on own? What should be the role of regulatory authorities? What about political and legal issues in aviation insurance?

The term air law is heavily contested and subjected to multiple academic interpretations. Initially the term aviation law or air navigation law were used interchangeably but soon they become outdated. Air navigation laws are those which relate to the navigation of an aircraft. It covers range of laws, rules and regulations that enable a state to make proper regulations for an aircraft approaching its territory. Later on air transport law was started being used. Due to the area of coverage internationally, it met its own limitations. Nowadays aeronautical law is being used. I will prefer the traditional Air Law for research.

Air Law: Air Law is an interesting area of aviation which is still in phase of development. Air Law is intertwined with many other areas of laws. It involves many aspects of Constitutional Law, Administrative Law, Commercial Law and Criminal. It's international in nature which cannot be declined.

From business perspective civil aviation is an industry. Aviation insurance commenced from early twentieth century. With commercial growth of civil aviation industry large aviation risk had to be absorbed. This led to development of international insurance market. **There is no "international law of insurance" its "international insurance market."**

The airline is a service provider. It's not just an extended arm of foreign ministry or the

defence establishment of any nation. The government regulations and restrictive licensing may produce inefficiencies. It will increase the operating cost and discourage the innovation. Government subsidies will not improve the airlines.

Risks are involved in transportation of passengers and the goods. Insurance of carriage is needed. Air lines operate in a very complex regulatory environment. There are different approaches to make rules and regulations. U.S. and Europe have a very complex regulatory environment and a very competitive atmosphere. But still the airlines are managing economical efficiency.

Airline Operation: The airline business is very unique in itself. It's a major economic force. Airlines carry passengers and cargo from various origins to various targeted destinations. Airlines industry is a very competitive business. Competition has brought benefits to the customer but challenges for airlines in the form of better services and low fares. Airlines business is also very complex as economic considerations are very high as optimum utilization of resources is required from flight plans to flight schedule. A great deal of effort is made in development of flight schedule as this will make airline profitable. Nothing can be left to slack no place for manoeuvre. Any change in airline schedule plan can generate series of operational deviation. Weather plays a very important role and brings uncertainty. It leads to irregular operations. Other issues can be aircraft mechanical problems, crew sickness etc. A good decision support system should produce effective decisions in time bound manner. Airlines companies' revenue is always at stake. A decision maker should have knowledge and years of experience. Evaluating framing problems anticipation and preventing future problems. The rapid growth of airline industry and continued threat of terrorist attacks nowadays has made safety and security issues critical for airline and its passengers. The emerging business models in the airline industry on the basis of operational and revenue: 1. Full service carrier; 2. Low cost carrier; and 3. Charter carrier.

Is insurance compulsory in aviation? There is no direct obligation in air law to arrange for adequate insurance. Chicago Convention is silent on this issue. The Rome Convention 1952, The Montreal Convention 1999, and Warsaw Convention 1929, contain requirements for adequate insurance[314].

[314] R.D. Margo, "Aviation Insurance", Third Ed., 2000, Pg. 20-27. See also: Diedericks: 'Introduction to Air Law'; Kluwer Law Books.

Air Law: Issues with the Law of Contract and Operation Issues: In 1929 when the Warsaw Convention containing certain rules relating to the international carriage by air were drafted the type of contract known as charter contract (Charter Agreement) was very rare to hear in the field of aviation[315]. The air industry was not developed. It was in a nascent stage. The convention was signed by very limited countries. The question of the applicability of the Warsaw Convention is a basic problem for the whole law of air charter contracts.

After the First World War air traffic expanded and demand for insurance arose but insurers were reluctant because of variety and magnitude of risks involved in this new means of transport. The spread of risk and limited insurers brought the conflicting tendencies.

Again after the Second World War in 1944 the representatives of 54 states attended International Convention on Civil Aviation. This conference was on future of international air transport held at Chicago. The Convention made fundamental contribution to conduct of domestic and international civil aviation enormous growth. US adopted a very liberal framework; but UK advocated a restrictive system with reason of national security and preserving airspace sovereignty[316].

The **Concept of Charter Contract** originally developed in the field of **Maritime Law** but began to be used in **Aviation Industry**[317]. Maritime charter agreements are mostly concern with the carriage of goods, but air charter agreements cover only the transportation of passengers and their luggage. In the maritime charter agreements the particular ship is individualized by its name, while, in air charter agreements, they specify the type of aircraft only thus leaving open the question of which particular aircraft is to perform the charter flight. The institution of ships and the institution of aircraft are very different. There requirements are different.

Today many countries are operating airlines but not all are signatories to the convention. The international carriage contract is based upon the English Common law system. There are states who are not party to the convention and are having civil law system have issues in application of the international carriage contract. Their way of approaching legal problems is

[315] Kurt Gronfors, "*Air Charter and The Warsaw Convention: A Study in International Air law*," First Edition, 1956, Springer Science Business Media B.V. Pg. 11-14. See also: Air Charter and the Warsaw Convention, 1956.

[316] See also: Air Charter and the Warsaw Convention, 1956.

[317] The principle source of knowledge about maritime charter in English law still seems to be Scrutton's famous Book on Charter Parties and Bills of Lading, 16th Ed. by Lennox McNair & Mocatta London, 1955; For American Law See also: Poor American Law of Charter Parties and Ocean Bills of Lading , 4th Ed. New York 1954.

also different[318]. If an accident[319] takes place a common law judge will principally not take into account the discussions which took place during the Convention. While a Civil Law Judge, on the other hand might base his interpretation concerning the applicability of the Warsaw Convention to Charter contracts.

Here I would like to clarify definitional issues; '**Charters'** are guiding rules and regulations for functioning of that particular institute which lay down rules and has its own limitations. '**Statutes'** are applicable in domestic forum. '**Convention'** is passed by international community coming together and passing a law it may or may not be binding. It is general rights and liabilities.

The law of single jurisdiction will govern the interpretation and validity of an insurance contract, the mode of performance, and the consequences of any breach of the contract. This is called the **"proper law of contract."**[320] The standard aviation insurance policies specify which law will govern the interpretation of the policy in the event of a dispute.[321] It's an issue of *Lex fori* (**Law of Place**) of accident or place of destination. In the United States in the absence of any express choice of law "*lex loci contractus*" (**Place of Making Contract**) the "place of making contract" is applied. Another potential conflict of laws problem exists in relation to reinsurance "cut through clause".[322]

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[318] Hughes, Problems of Liability Arising from the Chartering of an aircraft (Unpublished Manuscript) (Institute of International Air law Mc Gill University Montreal 1952 pg. 15. See also: Kurt Gronfors, "Air Charter and The Warsaw Convention: A Study in International Air law," First Edition, 1956, Springer Science Business Media B.V. Pg. 11-14.

[319] "*An occurrence associated with the operation of an aircraft that takes place between the times any person boards the aircraft with the intention of flight until such time as all such persons have disembarked in. A person is fatally or seriously injured as a result of: 1. Being in the aircraft, or 2. Direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or 3. Direct exposure to jet blast; except when the injuries are from natural causes self inflicted or inflicted by other persons or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew, or the aircraft sustains damage or structural failure which: 1. Adversely affects the structural strength performance or flight characteristics of the aircraft and 2. Would normally require major repair or replacement of the, affected component. Except for engine failure or damage when the damage is limited to the engine its cowlings or accessories or for damage limited to propellers wings tips antennas tyres, brakes fairings small dents or puncture holes in the aircraft skin or the aircraft is missing or is completely inaccessible. An injury resulting in death within 30 days of the date of the accident is classified as a fatal injury by ICAO. An aircraft is considered to be missing when the official search has been terminated and the wreckages have not been located*."

[320] *Forsikringsaktieselskapet Vesta vs. Butcher, (1986) 2 All E.R. 488 1 Lloyds Rep 19.* Lord Wright said: "*The Court has to impute an intention or determine for the parties; what is the proper law which as just and reasonable persons they ought to and would have intended if they had thought about the question when they made the contract.*"

[321] AVN 1A: This policy shall be construed in accordance with the English Law.

[322] *" A cut through clause is a provision in a contract of reinsurance pursuant to which the reinsurers agree that, if the primary insurers are unable to make payments to the insured under the primary policy for a particular reason, the reinsurers will make payment directly to the insured regardless of the fact that there is no privity of contract between the reinsurers and the insured. Cut through clauses are frequently insisted upon by*

Aviation insurance is divided into three categories:

1. Insurance of the equipment, i.e. the hull of the aircraft;

2. Insurance of the carriers liability; and

3. Insurance of flying personnel.

Risks affecting hull insurance is further divided into:

1. Flight risk,

2. Taxing risk, and

3. Ground risk.

Aviation supervision and control is regulated by Chicago Convention, and every aircraft must possess a certificate of air-worthiness certifying that the aircraft fulfils the safety requirements in force[323]. Most policies include liability or the flying risk, but exclude it from the period when the aircraft is not airborne for e.g. leaving the aircraft outside the hangar insufficiently guarded and secured.

After the Israeli Raid on Beirut Airport in 1968; a special clause came to be used in aviation industry 'War, Hijacking and Other Perils Exclusion' in the London Insurance market and it comes as a Form in every hull and liability insurance policy: 'AVN.48B Clause.'[324]. Through 'AVN. 52C' clause cover for the liability may be written back. By clause 'AVN.51' damages are written back but with a reduced cover.[325]

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the aircraft lessors and /or financiers even where the primary insurance is placed in a reputable insurance market where the risk of financial or political instability, or currency exchange difficulties, is minimal."

[323] *"Chicago Convention 1944: Article 31: Certificates of airworthiness and certificate of competency and licenses issued or rendered valid by the contracting state in which the aircraft is registered shall be recognized as valid by the their contracting states, provided that the requirement under which such certificates or licenses were issued or rendered valid are equal to or above the minimum standard which may be established from time to time pursuant to this Convention. See also: Unpublished Research Paper Submitted to The WB National University of Juridical Sciences on 2016/04/06."*

Article 37: Each contracting state undertakes to collaborate in securing the highest practicable degree of uniformity in regulation, standards, procedures and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation.

[324] M.R. Callagher and A.L. Stephans, 'Recent Developments in Aviation Case Laws' (1978) JALC, Pg. 231-260.

[325] "*That both an airlines hull and liability all risk policy and its hull war risk policy policies of indemnity, that is, subject to any limits set out in the policies. If the claim is valid, insurers will indemnify the insured for the loss so that it is as if the loss had not occurred. Being policies of indemnity, insurers and indeed reinsurers have the right of subrogation" once the insurers have indemnified the insured under the policy they step into his shoes in relation to any rights of recovery that may be available to the insured against third parties. See also: R.D. Margo, "Aviation Insurance", Third Ed., 2000, Pg. 20-27. See also: Diedericks: 'Introduction to Air*

The principle insurance coverage which excludes the war risk through an exclusion clause is 'AVN.48B'. Passenger and third party added to the principal liability policies by an extension clause known as 'AVN.52'. After11/09/2001, the fundamental problem was the un-quantified nature of the new third party risk; if a risk cannot be quantified then it cannot be priced. The terrorist attack was an unprecedented event with losses on a scale never before contemplated by governments and the aviation insurance industry.

The premium in aviation insurance is calculated in two different ways: 1. Percentage of the total value, and 2. Case to case, which may be used in short cover transactions.

The premium is usually calculated on an annual basis. The insurers are not obliged to pay until the damage to the airline has been established to the satisfaction by technical experts. The carrier's liability insurance covers not only the liability of the carrier for passengers, luggage and cargo, but also the third party liability.

Neither the Warsaw Convention nor the Hague Protocol contains any rules binding upon the carrier. The Warsaw liability system has three important elements, namely: 1. Presumed liability, 2. Liability limitation, and 3. Breakability.[326]

These three elements are intricately linked and form a single Warsaw liability scheme.

Aircraft Hijacking has a strong impact on Aviation Insurance. The aviation insurance market has always differed from other insurance markets because of the lower premium base and also the customer base is very narrow. IATA has some 230 airline worldwide[327].

The insurers need a considerable technical knowledge to assess accurately the safety aspect from a technical expert in the field of airlines. A pooling[328] arrangement of capital is arranged for risks writing. The profits are shared by the participants in proportion to the capital pooled. In an advisory capacity, The International Union of Aviation Insurers (IUAI) plays important role in drafting of the international convention on air law.

Law'; Kluwer Law Books. See also: Triant Flouris. "Recent Developments in the Aviation Insurance Industry", Risk Management and Insurance Review, 09/2009. "

[326] "*The **theoretical basis** of unbreakable limitation is explained as: An unbreakable limitation of the carrier's liability is important to airlines and aviation underwriters. International aviation no longer requires incubation as an infant industry, but it needs protection from the catastrophic loss that could result from an accident to one of the coming generation of larger aircraft, with several hundred people on board.*
*Important Note: If we talk about strict liability, the costs of insurance being necessarily passed on to fare paying passengers, would be that the poorer passengers, would be that the poorer passengers pay for insuring the richer(" **the peasants pay for the kings**"). An effective limit would leave the more expensive passengers to take out personal accident insurance to meet his special requirements over and above the limitation amount."*

[327] A Guide to Aviation Insurance: International Union of Aerospace Insurers, December-2012.

[328] A pool is, in fact, a common insurance department of the contracting companies.

The risk exposure of each airline is huge. To underwrite the entire amount of an airline's overall risk is not possible for a single insurer. Usually a number of insurers will underwrite a small percentage of that exposure, thus keeping the exposure for any one insurer within acceptable limits. Aviation insurers provide insurance cover for insured's (airlines, manufacturers, airports service providers (refueller, caterers, security screeners etc.) against loss damage and liability in return for premiums. Insurers in turn pay premiums to reinsurers to transfer part of the risk[329]. The risk that an insurer can prudently cover is determined by the sum of funds from his capital providers retained profits and any reinsurance he has purchased.

These five are big players in the aviation industry who have the financial ability to provide liability limits in excess of 300$ million:

1. Global Aerospace,

2. Allianz Aviation,

3. United States Aviation Underwriters,

4. Starr Aviation, and

5. Chartis Aerospace (formerly AIG Aviation).

This shows the lower premium base and the customer base in the aviation industry.

Airports service providers still commonly purchase excess layers to supplement the cover included in their basic policies.

Under writers invoked:

1. war risks,

2. cancellation provisions,

3. massive rate, and

4. premium increase.

These steps are being taken by the Underwriter to sustain in the market. Nowadays buyer of aviation insurance need to Invest in Safety Management System[330] it has become mandatory.

[329] See also: Unpublished Research Paper Submitted to St. Patrick's College on 2016/08/10.

[330] Safety Management System means a system for the management of safety at the aerodromes including the organizational structure, or responsibilities, procedures, processes and provisions for the implementation of

It is already being practiced in the aviation market of Europe, Canada, and Australia. Invest in technology that contributes to safety. Leading aviation underwriters are taking these safety measures as protective shield. Most importantly they pick an insurance broker who knows how to disseminate this entire technicality to the aviation insurance underwriter.[331]

The Warsaw Convention of 1929, though amended[332] many times, is the sole convention which contains private law based regulations, on air carriers. The Warsaw Convention imposes the 'burden of proof' on the air carrier instead of on the victims, thus presuming the air carrier's fault for personal or property damages caused during international carriage. The Warsaw Convention doesn't cover claims against parties other than the air carriers. The Warsaw Convention discriminates among the passengers and can no longer be justified. The final and ultimate payer of the premium is the passenger or consignor of the cargo.

What is an appropriate price for aviation insurance coverage? What capital is necessary? &, What return should insurance capital providers expect? As of 2001 there were approximately 15,000 western built jets and 8,000 turbo-props. Annually planes move 1.6 billion passengers in 21.5 million departures.[333]

Here again historical information is being used to project the future is a difficult science. Perhaps it is more of a scientific art. Events that happened 20 years ago will have to be translated into current dollars, and adjusted to current technological, economic, and judicial environment.[334]

An appropriate pricing formula is needed. **Rodney Kreps**[335] has theorized this as:

$$\text{Price} = \text{Expected Loss} + \text{Load}$$

$$\text{Where Load} = [\text{Fraction}] * [\text{Standard Deviation}]$$

$$\text{More formally, } P = EL + Y * \sigma$$

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aerodrome safety policies by an aerodrome operator, which provides for control of safety at, and the safe use of, the aerodrome.

[331] See also: Submitted to Universiti Teknologi MARA on 2016/04/20.

[332] Chia-Jui Cheng, 'The Use of Airspace and Outer Space for all Mankind in the 21st Century', (1995) Kluwer Law International – The Hague, Chapter.09, 'The Liability of International Air Carriers in the Changing Era' Pg. 89-104.

[333] 2001, IUAU Statistics.

[334] See also: The Journal of Risk Finance, Volume. 6, Issue. 3 (2006/09/19).

[335] Kreps R.E. 1999, "Investment Equivalent Reinsurance Pricing," in O.E. Van Slyke (Ed.) Actuarial Considerations Regarding Risk and Return in Property Casualty Insurance Pricing, Pg. 77-104 Alexandria VA Casualty Actuarial Society. This paper was awarded the CAS Dorweiler Prize. See also: See also: The Journal of Risk Finance, Volume. 6, Issue. 3 (2006/09/19).

Where EL is the Expected Loss and Υ is the fraction of σ, the standard deviation.

This is being widely used by the aviation insurance industry. Reinsurance of aviation risks is done on aggregate excess of loss basis (AXOL)[336] rather than a more familiar excess of loss (XOL) basis. Insurers require coverage for the aggregation of multiple events each year.

The reinsurers will provide a single aggregate limit of coverage with one or two reinstatements. On a per event basis reinsurers agree to reimburse all losses above an agreed attachment point up to a specified limit.

This is a form of reverse engineering that can inform the pricing of the underlying insurance. Aviation insurance is written on an unlimited basis, reinsurance is written with strict limits of liability. Reinsurance is written on a layered occurrence basis, while insurance is written ground-up.

To illustrate:

$$\text{Expected Profit} = \text{Premium} - \text{Expected Losses}$$

$$\text{and Premium} = EL = \Upsilon * \sigma$$

$$\text{Therefore Expected Profit} = \Upsilon * \sigma$$

The way aviation insurance is developing aviation technology is evolving; the insurance premiums are reduced and this excludes the insurer's liability decreases; insurance pools will dominate the market. No single insurer has the financial resources to retain a risk of the size of a major airline or even a substantial proportion of such a risk.

Reinsurance will themselves have to go for insurance, sometimes loosely referred to as retrocession, although this term tends to have more limited but specific meaning. Apart from the traditional forms of insurance some of the risk is transferred directly to non-insurance entities through the use of alternative risk transfer (ART) bonds.

New insurance clauses are inserted with legal impunity. Old insurance clauses are re-drafted to address war and terrorist risk.

One issue will always remain: How much role should the government play between the insurers and the airlines especially from the emerging economies perspectives. The

[336] Pricing Issues in Aviation Insurance and Reinsurance; The Air claims Aviation Pocket Handbook Air claims, 2002. See also: Kreps R.E. 1999, "Investment Equivalent Reinsurance Pricing," in O.E. Van Slyke (Ed.) Actuarial Considerations Regarding Risk and Return in Property Casualty Insurance Pricing Pg. 77-104 Alexandria VA Casualty Actuarial Society. This paper was awarded the CAS Dorweiler Prize.

fundamental principle of all forms of insurance is that "the premiums of the many will pay the losses of the few".[337] Aviation as a class has one of the smallest premium bases in the insurance industry it has one of the highest exposures to the potential catastrophes.[338]

Lloyds have introduced realistic disaster scenarios (here in after RDS). An airlines various aviation risks are normally insured as a whole with one combined policy covering loss or damage to the aircraft in its fleet and its legal liability to passengers and third parties. [339]Once the leader has signed the slip, the broker will approach other underwriters at Lloyds or insurance companies in London and invite them to take part of the risk.[340] An interesting thing to observe in aviation industry is that: US based aviation generally doesn't write on Non-US airline business although exceptions are there.

In Insurance market there is no such thing as bad risk, on a bad rate; everything is insurable for the right price.[341] **What is the right price for an aviation risk an underwriter in aviation insurance industry decides?** Aviation cannot provide insurers with a balanced portfolio because of the small number of risks. Direct insurers rely on reinsurance to help smooth out the effects of random fluctuations in losses and reduce the catastrophic losses.[342] Many reinsurers have reservations about providing stop-loss insurance, which explains why it

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[337] Viccars(2001,Pg.xiii) See also: Triant Flouris, Paul Hayes, Kuntara Pukthuanthong-Le,Dolruedee Thiengtham, Thomas Walker, " Recent Developments in the Aviation Insurance Industry", Risk Management and Insurance Review, *2009, Vol.12, No.2, Pg. 227-249. See also: Unpublished Research Paper* Submitted to Singapore Management University on 2014/09/28.

[338] Viccars (2001, Pg.xvi) See also: Triant Flouris, Paul Hayes, Kuntara Pukthuanthong-Le,Dolruedee Thiengtham, Thomas Walker, " Recent Developments in the Aviation Insurance Industry", Risk Management and Insurance Review, *2009, Vol.12, No.2, Pg. 227-249. See also: Unpublished Research Paper* Submitted to Singapore Management University on 2014/09/28.

[339] Ibid, See also: Triant Flouris, Paul Hayes, Kuntara Pukthuanthong-Le,Dolruedee Thiengtham, Thomas Walker, " Recent Developments in the Aviation Insurance Industry", Risk Management and Insurance Review, *2009, Vol.12, No.2, Pg. 227-249.*

[340] Triant Flouris, Paul Hayes, Kuntara Pukthuanthong-Le,Dolruedee Thiengtham, Thomas Walker, " Recent Developments in the Aviation Insurance Industry", Risk Management and Insurance Review, *2009, Vol.12, No.2, Pg. 227-249. See also: Unpublished Research Paper* Submitted to Singapore Management University on 2014/09/28.

[341] Triant Flouris. "The international aviation insurance regime in times of industry uncertainty", International Journal of Private Law, 2009.

[342] *"The basis of insurance is the law of large numbers, first described around 1700 by Jakob Bernoulli . For any individual risk it is impossible to predict the exact moment when fate will strike or the extent of the loss that will be incurred. But if insurers are covering very many similar risks then statistical methods are used to predict future trends. The fate of any individual risk is still not known but it is known how many losses of certain type occur over a given time in a large population of risks. As such, a large motor insurer providing cover for several hundred thousand cars would be considered to have a balanced portfolio. E.g. of portfolios with extremely poor balance, on the other hand include nuclear power and aviation where a potentially huge exposures arises from a relatively small number of objects insured. "(Swiss Re, 2002) See also: Triant Flouris, Paul Hayes, Kuntara Pukthuanthong-Le, Dolruedee Thiengtham, Thomas Walker,* "Recent Developments in the Aviation Insurance Industry", Risk Management and Insurance Review, *2009, Vol.12, No.2, Pg. 227-249.*

is not widely used.[343]

The critical issue for the aviation market is to find a sustainable level of premium that is both justifiable to buyers and also sufficient to attract and retain the high quality capital providers necessary to cater for everything increasing risk exposures. "***Underwriting owes more to art than science and the final rate charged, depends upon the underwriters judgment with respect to a number of soft factors. Often their intuition may be correct but in many other instances they can go wrong.*"** Underwriters will determine the total amount of premium needed to meet average expected claims levels and then add an allowance for future catastrophes, commissions, and expenses and profit on return of capital employed. If airlines industry is able to demonstrate underwriters that there safety security is good than higher additional premium will soften.

Aviation Reinsurance was all forms of reinsurance protection developed over the years. The problems associated with insurance of an aircraft are not unique but it is unusual to find a class of business where they all occur at once. The aviation insurance market is truly international. Risks are placed in all countries through exchange of reinsurance. This makes for a competitive and free market on worldwide basis. Reinsurance plays a major part in aviation insurance, as around 80% of an aircraft have to be reinsured.

Accumulation of risk is a very real problem for the aviation insurer. The main forms of coverage for airline risks are placed on a policy for operator's whole fleet. There used to be separate policies for hulls and liabilities but over the years to save on administration, combined hull and liability policies have been produced.

The Reinsurance market has become heavily involved in the insurance of aviation risks. This is because a large number of risks emerge from the direct market by way of reinsurance due to the lack of spread and high values involved. As 'natural monopolies' its resources cannot be permitted to be controlled by those representing narrowly defined economic interest. Regulation of its activities cannot be left solely to market forces but must rely at least in part on allocation decisions made through the political and legal process.

[343] Swiss Re (2002) See also: Triant Flouris, Paul Hayes, Kuntara Pukthuanthong-Le,Dolruedee Thiengtham, Thomas Walker, " Recent Developments in the Aviation Insurance Industry", Risk Management and Insurance Review, *2009, Vol.12, No.2, Pg. 227-249.*

Part B: Nuclear Risk and Re-insurance

Introduction to Nuclear Risk: Nuclear industry developed in an environment of mistrust and secrecy. Nuclear risk is a combination of mainly science, technology, politics and economics and many more subjects. However, international politics dominates the domain of nuclear technology and nuclear risk. While a strong state approach is required in the international politics, safety is the major concern. I will, in this section, explore the proposition that emerging economies growth is co-related with the nuclear power and nuclear transfer of technology.

The questions I will address in this section are as follows: Can nuclear energy be an alternative to conventional energy? Has international restrictive nuclear technology escalated the fuel cost? What should be the role of international politics in supplying of nuclear technology? Can regulation theory break shackles of international political vested interest? Is nuclear pool a viable solution for the capital formation?

"*The age of nuclear power as a symbol of exaggerated expectation and broken promises"*[344]
"*There are few subjects in the field of environmental pollution to which people react as emotionally as they do to radioactivity*"[345].

There were three serious accidents first at Three Mile Island Pennsylvania in March 1974; second at Chernobyl near Kiev in April, 1986; and the third at Fukushima Accident 2011; which made the perception. Nuclear energy poses special risks to the health and safety of person and to the environment. However nuclear material and technology holds the promise of benefits for mankind which has always been overlooked. A balance is required between the risk and benefits. Nuclear law[346] must take its place within the normal legal hierarchy applicable to most states. Regulations in detail are required often highly technical rules to control and regulate nuclear technology.

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[344] Freeman Dyson Young Warren Atomic Energy Casting, 1998. Pg. 04. Quoting from Dyson Freeman Scientific American 150th Anniversary Issue Key technologies for the 21st Century 1995, Pg.88.

[345] Royal Commission on Environmental Pollution 6th Nuclear Power and the Environment….Cmnd 6618…1976 para…05. See also: Stephen Tromaus QC, *"Nuclear Law: The Law Applying to Nuclear Installations and Radioactive Substances in its Historic Context,"* Second Edition, Hart Publishing: Oxford &Portland & Oregon Year 2010, Pg. 3-9.

[346] Carlton Stoiber, Alec Baer, Norbert Pelzer and Wolfram Tonhauser, "Handbook on Nuclear Law, "Published by International Atomic Energy Agency, July , 2003, Pg. 1-05, 107-109 and122. See also: http://www.law.kuleuven.ac.be/iir/nl/onderzoek/wp/WP116e.pdf

The objective of nuclear law is to provide a legal framework for conducting activities related to nuclear energy[347] and ionizing in a manner which adequately protects individual's property and the environment. Legal solutions have to reconcile within the constraints of specific law[348].

Principles of Nuclear Law: There are certain fundamental principles which state has to consider when regulating the nuclear law: 1. The principle of safety, 2. The principle of security, 3. The principle of responsibility, 4. The principle of continuous, 5. The principle of compensation, 6. The principle of compliance, 7. The principle of sustainable development, 8. The principle of permission, 9. The principle of independence, 10. The principle of transparency, 11. The principle of international cooperation.

Radioactivity is the most common risk in any kind of nuclear activity. Therefore it requires a unique legal and institutional framework based upon above fundamental principles. The institutional framework also maintains a fine balance between military and civil applications. It requires multi-disciplinary legal approach for the conduct of activities related to nuclear energy[349] of ionizing radiations. A strong state approach is required towards policies.

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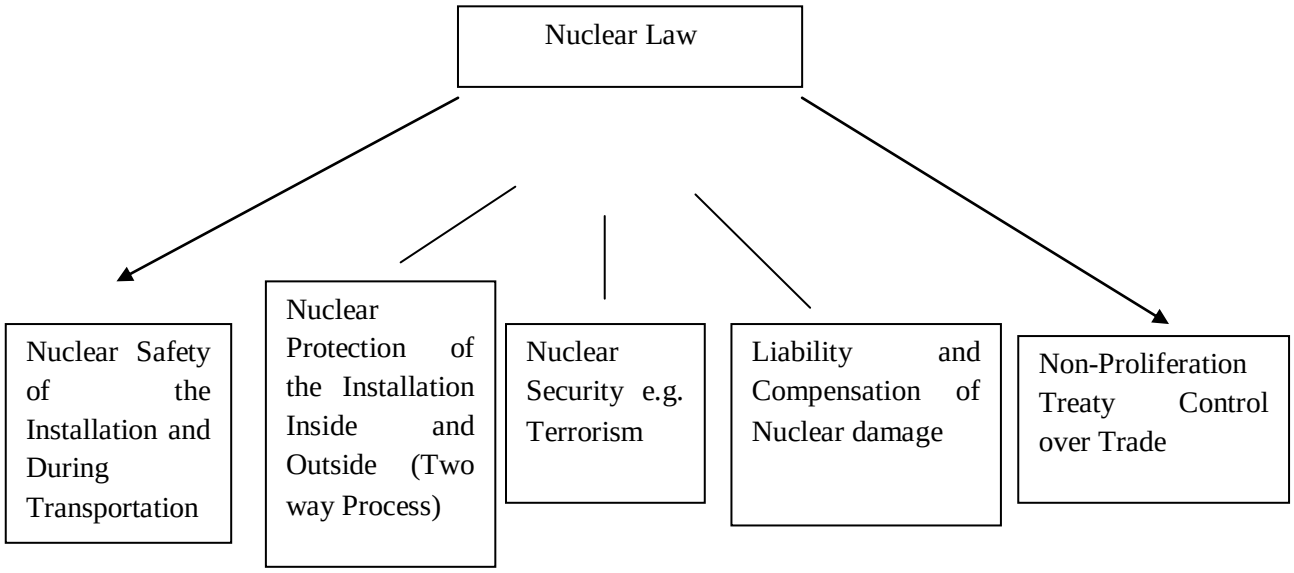
[347] *"An atom is the smallest particle into which an element can divide without losing its chemical identity. Atom consists of a heavy central nucleus surrounded by a cloud of negatively charged particles called electrons. The nucleus contains positive particles (protons) and electrically neutral particle (neutrons). The number of protons is called the atomic number. This number uniquely identifies each chemical element. In turn, protons and neutrons are composed of quarks. An element is a chemical substance that is made up of single kind of atom. A nuclear reaction is a process in which atom collide with other atoms and lose some of their original mass. Because of the principle of energy conservation the lost mass must reappear as generated energy, according to* ***Einstein's equation E=mc^2.*** *When neutrons as they exist in nature hit the nucleus of an atom of one of the components of the heavy metal uranium it splits in two atomic fission. This split releases an enormous amount of energy most of which causes the two fragments to move apart at high speed among the uranium atoms. The metal is quickly slowed down transforming their energy of motion. This heat that is used in nuclear electricity stations to provide steam for the turbo generators. The two types of* ***nuclear reactions*** *used to produce energy are* ***fission and fusion.*** *In a fission reaction, a heavy atomic nucleus is split into smaller nuclei, other particles and radiation. Nuclear power plants exploit the process of fission to create energy. In a fusion reaction, two or more light nuclei fuse to form a single heavier nucleus. The mass change in the process is the source of nuclear energy."* www.atomic.lindahall.org See also: Namira Negm, "*Transfer of Nuclear Technology under International Law: Case study of Iraq, Iran and Israel,"* Martinus Nijhoff Publishers, Leiden, First Edition, 2009, Chap. 1. Pg. 1-12. See also: ***Lord Ernest Rutherford 1935 a Cambridge Atomic Physicist in the Times*** he said," The neutron Novel transformation as having concluded that the transformation of atoms… was a very poor and inefficient way of producing energy, and anyone who looked for a source of power in the transformation of the atoms was talking moonshine." *Richard Rhodes, the Making of the Atomic Bomb (London), Penguin, 1986, Pg.04. See also: Unpublished Research Paper* Submitted to Indiana Wesleyan University on 2015/05/26. *See also:* Submitted to UC, Boulder on 2015/05/15.

[348] Diane de Pompiguau, "*Law on the Peaceful Uses of the Nuclear Energy: Key Concepts,*" Unpublished Dissertation, For the University Diploma in International Nuclear Law, 2004, Montpellier, France, University of Montpellier with OECD.

[349] Definition: *" any nuclear reactor other than one which means of sea or air transport is equipped for use as a source of power, whether propulsion thereof or for any other purposes; any factory using nuclear fuel for the production of nuclear material, or any factory for the processing of nuclear material, including any factory for the reprocessing of irradiated nuclear fuel; and any facility where nuclear materials is stored, other than*

International Law has lots of intervention in the policy making on Nuclear Law. The nuclear law has its internal bifurcation as follow:



The limited exposure to radiation may lead to major catastrophe. Hence the role of the operator is prime important from the liability perspective. Therefore the Control by a competent authority is required. An independent regulatory authority is a must. Transparency is requisite in the functioning of the nuclear institution framework. Nuclear safety has to become a culture. The nuclear law has to take into account a states own particular national culture and legal traditions when imbibing nuclear culture. Western designed nuclear installations are trust worthy because of their high engineering and risk management standards.

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storage incidental to the carriage of such material; provided that the Installation may determine that several nuclear installations of one operator which are located at the same site shall be considered as a single nuclear installations."

Definition: "Nuclear *damage means: 1. Loss of life or personal injury 2. Loss of/or damage to property and each of the following to the extent determined by the law of the competent court 3. Economic loss arising from loss or damage referred to in sub paragraph (1) or (2) insofar as not included in those sub paragraphs, if incurred by a person entitled to claim in respect of such loss or damage; 4. The costs of measures of reinstatement of impaired environment unless such impairment is insignificant if such measures are actually taken or to be taken, and insofar as not included in subparagraph (2); 5. Loss of income deriving from an economic interest in any use or enjoyment of the environment incurred as a result of a significant impairment of that environment and insofar as a result of a significant impairment of that environment and insofar as not included in subparagraph (2); (6) the costs of preventive measures and further loss or damage caused by such measures 7. Any other economic loss other than; any caused by the impairment of the environment if permitted by the general law on civil liability of the competent court*." See also: Carlton Stoiber, Alec Baer, Norbert Pelzer and Wolfram Tonhauser, "Handbook on Nuclear Law, "Published by International Atomic Energy Agency, July, 2003, Pg. 1-05, 107-109 and122.

Politics in International Nuclear Institutional Framework: The State has to adhere to Nuclear Liability Conventions: 1. The Vienna Conventions and the Joint protocol and/or the Convention on Supplementary Compensation for Nuclear Damage. 2. The Paris Convention and the Joint Protocol and/or the Convention on Supplementary Compensation for Nuclear Damage and the Brussels Supplementary Convention. 3. National Nuclear Liability Legislation and the Convention on Supplementary Compensation for Nuclear Damage.

Nuclear Electric Insurance Limited (here in after NEIL); European Mutual Insurance for Nuclear Installations (here in after EMANI) and European Liability Insurance Mutual (here in after ELINI) are three organizations which are responsible of Nuclear Liability worldwide. It started in Europe in U.K. in 1956 and NEIL in U.S. in 1973. IAEA's Vienna Convention on Civil Liability for Nuclear Damage of 1963 came in force 1977 ; The OECD's Paris Convention on Third Party Liability in the Field of Nuclear Energy of 1960 which entered into force in 1968 Brussels Supplementary Convention in 1963. They were linked by Joint Protocol adopted in 1988. In 1997 A Convention on Supplementary Compensation for Nuclear Damage (here in after CSC) was established with international contributory fund. It proposed a UN rate of assessment and promoted affiliation to any nuclear liability conventions. This idea was promoted to have a common umbrella for command and control of regulatory authorities.

Application of International Nuclear Institutional Framework: A third party liability is taken by nuclear operator as nuclear accident has potential of cross border consequences so national laws are being supplemented by the international conventions.

If we explore deep inside international framework there is **wide split between US and Europe right from supplying of reactors, to licensing and transfer of nuclear technology.** This automatically brings in financial liability, affiliation to nuclear pools, requirement of efficient fast breeder reactors and dependency upon west for nuclear reactors.

France is the promoter of Paris Convention and Joint Protocols. U.S is the promoter of the CSC. This has led to three types of categories: 1. the countries that are non signatory to any of the international convention but have their own legislation e.g. US, Canada, Japan, and South Korea. 2. Party to one or both of the international convention and have their own legislation also, 3. Neither party to any of the international legislation and nor having its own legislation e.g. China.

Debate on Transaction Cost of Nuclear Energy: Comparing with other sources of energy the economies of nuclear energy as a source of cheap electricity has been greatly exaggerated. The cost difference between nuclear and conventional energy cannot not exceed the fuel cost for latter and an upper bound on the energy cost savings that nuclear power might produce.[350] Advocates of the nuclear power claim that nuclear powers offer the world a virtually unlimited source of clean and reasonably priced energy. The opponents claim that nuclear power is uneconomic, unsafe, and environmentally damaging and a threat to world stability[351]. We also have to take into consideration the international politics involved in building reactors, to acquiring raw materials and acquisition of nuclear fuel to run this reactor escalates the cost for emerging economies. The capital investment in nuclear plant construction is sizeable and makes the huge difference.

The rules of the NPT and those of the IAEA governing the transfer of nuclear technology are restrictive for the Non Nuclear Weapon State. Punitive damages are a deterrent instrument. Measurement of damages to property needs economic analysis of law. The behaviour of legislatures is generally studied under the heading of public choice theory[352]. According to the participatory model of democracy the inclusion of all stakeholders affected by a nuclear decision and investigating the issues of civil society efficiently will certainly benefit the discourse around nuclear risk that it's positive.

Financial Recondite Nuclear Power Companies: Nuclear power companies are privately owned entity and enjoy a limited liability. Suppose there is **disaster they face the liability which is capped maximum to the value of their net assets. Beyond that they owe nothing.** Banks also suffer huge losses but they internalized the nuclear risk through the price term in their contracts with the nuclear power companies.

Regulation theory seems to solve problem in theories only; **in practice it unable to do so.** The vested **political interest in emerging economies** is major hurdles**.** Sometime regulatory authorities protect the interest of the firms they regulate and operate primarily for its benefit.

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[350] Young Warren, "Atomic Energy Costing" 1998, pg.19, Quoting from a Document sent by Roy Harrod to Lord Cherwell for the latter's comments on 29/05/1947 Harrod to Cherwell Cherwell Papers j71/16, j 71/15 (pg.09.) See also: Namira Negm, "Transfer of Nuclear Technology under International Law: Case study of Iraq, Iran and Israel," Martinus Nijhoff Publishers, Leiden, First Edition, 2009, Chap. 1. Pg. 1-12.

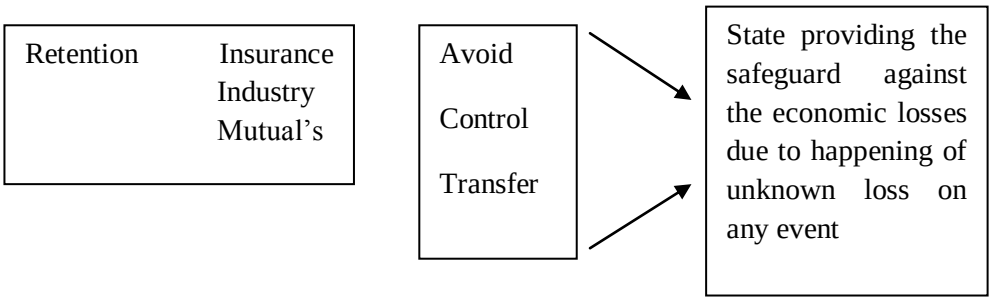
[351] Harris Robert, "Alternative Energy Resources: An International Approach," Published in Regulation of Atomic Energy Columbia Journal of Transitional Law, Vol. 16, 1977, pg. 391. See also: Nuclear Energy, Published in Social Implications of the Peaceful Uses of Nuclear Energy, 1972, pg.136.

[352] Thomas J. Miceli, *"Economics of the Law, Torts, Contracts, Property and Litigation",* Oxford University Press, Oxford, First Edition, Chapter. 1, Introduction, Pg. 14.

It can be because the firms bribe them or may be **after retirement as regulators these firms hire them.** Certainly a bureaucrat cannot be subject matter technical expert in nuclear technology but lucrative are high cannot decline the offers of the firm.

Regulated firms work like agents for the politicians as principals who in return promote the interest of these firms. Public vote for good regulations and protect their interest. But these firms convert this legislation as mere piece of paper and lobby heavily for licensing; to get lax in tax and get higher return rates. So it could be said that private ownership and the share holders of the power companies enjoy the revenue from nuclear reactors but with limited liability and escape the catastrophe. On the other hand if nuclear accident happens the government has to step in to pump money for rehabilitation. Provide contingent fund for nuclear damages. The nuclear radiation is continuous process for years. Nuclear accidents have long lasting consequences. This also led to higher taxes for the public and this vivacious circle never ends in emerging economies.

Financial Recondite Re-insurance Nuclear Pools: Nuclear pools are like an association of insurers who jointly insure a particular nuclear risk or class of business[353].When we talk about the risk management the option available is as follows:



Initially the concept of nuclear pool was new in the field of the nuclear energy. It started when the nuclear energy was used for electricity generation and the insurers started to cater for nuclear risk.

To understand risk in the field of nuclear energy we have to understand that it's a poorly perceived risk as only one nuclear bomb in 1945 for assumption/ anticipation/ probability. Three accidents Chernobyl, Fukushima, Three Mile Island. The nuclear installation is seldom insured. The accumulation of high risk claims is based on one single event. Nuclear

[353] Insurance of Nuclear Risks IEA, Dec. 2013. See also: www.nuclearpools.com.

‘exclusion clause’ incorporated by insurers in the insurance policies changes the whole dynamics.

There are some fundamental principles for operation of Nuclear Pool: 1. Spread of the risk. 2. Wide spread participation in market oriented scheme to enhance financial capacity. 3. Introduce the cost efficiency by method of concentration of expertise and use of technical experience especially for claims as its new to the insurance market. It also leads to the development of claims handling mechanism. This also led to the reciprocal reinsurance and brought security to insurers.

There prerequisites for a nuclear pool cover is adherence to domestic nuclear legislation. Technical acceptability of the nuclear installation is needed. But the nuclear installation is seldom insured. What kind of regulatory compliance for nuclear installation is never known? It’s done in paper work.

In order to minimize the loss in nuclear pools: 1. Safety of nuclear power stations. 2. Regulatory compliance of Nuclear Fuel cycle 3. The transportation of nuclear material and protect them from terrorist 4. Radio-isotopes. It also includes freedom of negotiation and other obligations standard practice of insurance.

Strict or no fault liability is ground rule which is based on technical expertise. As we have seen the concept of nuclear damage is based on: 1. Loss of life and personal injury. 2. Damage to property. 3. Economic loss.

Difficulty arises when insurability is more than 10 years for claims. International operation experience is added advantage with insurance surveys. Best practices helps in the loss prevention. Claims experience from Chernobyl, Fukushima, Three Mile Island comes handy. Large scale pools help financially but regulation preparedness with local authorities required.

Risk pooling can be also called the mutualisation of risks which is the essence of insurance. The risk transfer through pool of reinsurers in capital market helps in diversification.

The mandatory financial coverage the operator must maintain; the insurance cover that guarantees a minimum amount of protection of victims.

Nuclear insurance is a combination of market insurance and guarantee by governments. The market offers insurance coverage for risks that surpasses the capacity of any member of the pool. Every pool member declares annually the coverage it’s willing to offer and similarly in claim payment each member of the pool contribute a ratio of its participation contractually

agreed with the pool.

International Institutional Framework of Nuclear Pools: Some internationally acclaimed nuclear pools are: 1. American Nuclear Insurers (ANI); 2. Japan Atomic Energy Insurance Pool; 3. Nuclear Energy Insurance Pool of the Republic of China (NEIPROC); 4. The South African for the Insurance of Nuclear Risk.

The continuous work of gathering risk information about nuclear fuel cycle; claims data and modifying standards will convert nuclear pools into profits. The transferring large scale risk from nuclear operator to government makes sense because governments have less risk aversion than firms.

Can nuclear risk be priced and transferred to the financial markets in emerging markets? Insurers add an ambiguity premium to the risk premium. Other reasons are: 1. The probability of large scale nuclear accident is difficult to appraise; 2. Nuclear accidents have a long lasting consequences; 3. The transfer of such large scale risks requires special alternative risk transfer.

Economic efficiency of nuclear risk requires the heavy price for risk. The hidden subsidy from governments to nuclear operator should be included in cost of the nuclear energy[354]. This is the issue in the emerging economies. This makes cost of nuclear power not economically viable. The pooling theory of insurance fails because of limited financial capacity constraint in emerging economies which makes distribution of risk difficult. Nuclear Risk has to move away from mathematical computational table, statistical analysis and probability to decision making process and involve human cost with human decision. The people who die in nuclear radiations are not numbers they are human beings.

Nuclear Power in the Developing Countries: Developmental Necessity and Non-Proliferation Constraints: The level of electricity consumption is an indicator of a nation's growth then the developing countries have no other option than to increase their electricity consumption and nuclear power seems to be the most viable alternative to the depleting fossil fuel resources of these countries.

Andrei Sakharov, the Soviet Nobel laureate and human right activist said, "*peaceful uses of nuclear energy should promote the unity of mankind in contrast to the nuclear weapons which divide mankind; some aversion people rightly felt for military application must not*

[354] Pierre Picard, "The Insurability of Nuclear Risk," Ecole Poly-Techniques, Paris, Date 15/11/2011.

spill over to the peaceful use of nuclear energy; he further said mankind cannot do without nuclear power, We must find the solution to the safety problem in terms of human failure, design defects or a technical malfunction. People concerned about the potential harmful consequences of the peaceful use of nuclear energy should concentrate efforts not on attempt to ban nuclear power but instead on demands to assure its complete safety.[355]"

Why nuclear power for the developing countries? Nuclear power has not succeeded in establishing a new era of universal cheap energy. Experience of nuclear accidents Chernobyl, Fukushima, Three Mile Island has become major deterrent. The socio-political opposition to the nuclear energy has slowed down the pace of growth.

The IAEA could be of immense use to the emerging economies in the areas of safety of nuclear installations, radiological and environmental protection, transportation and physical protection of nuclear materials and nuclear data processing[356]. Nuclear technology is one of them[357]. Reactor recipient countries are now insisting on increased local participation in the whole process of negotiation.

Diversifying to other energy sources will certainly be beneficial to emerging economies. But over dependency on nuclear fuel, the cost of uranium, additional dependence on nuclear suppliers for nuclear materials, nuclear equipment and nuclear technology has increased the transaction cost. Restrictive regulations have become counterproductive. Over dependence on external financial investment with no scope internal fund creation is major blow to this industry.

The non-development of nuclear power as nuclear industry can be primarily attributed to insufficient trained manpower, inadequate infrastructure, economic issues and the financial constraints.

The major bottle neck for emerging economies is the political dimension of the technology transfer/proliferation fears negatively affecting the flow of nuclear technology to these

[355] Time, 21/07/1990.

[356] Daniel Poneman, Nuclear Energy in the Developing Countries, (Allen Unwin, 1982), Pg .18.See also: K.D. Kapur, "*Nuclear Non- Proliferation Diplomacy: Nuclear Power Programmes in the Third World*," Lancer Books; New Delhi, 1993., Chapter. 1 Chapter 5 and Chapter 7, Nuclear Power in the Developing Countries: Developmental Necessity and Non-Proliferation Constraints; Brazil : Challenging Argentina's Nuclear Supremacy and Nuclear Power Profile of India; By K.D. Kapur, Pg .10-43; 143-175 and 222-255.

[357] H.J. Lane," Nuclear Power and Technology Transfer," IAEA Bulletin, December, 1982, Vol. 24, No.04, Pg.2. See also: K.D. Kapur, "*Nuclear Non- Proliferation Diplomacy: Nuclear Power Programmes in the Third World*," Lancer Books; New Delhi, 1993. Chapter. 1 Chapter 5 and Chapter 7, Nuclear Power in the Developing Countries: Developmental Necessity and Non-Proliferation Constraints; Brazil : Challenging Argentina's Nuclear Supremacy and Nuclear Power Profile of India; By K.D. Kapur, Pg .10-43; 143-175 and 222-255.

countries. High investment costs of nuclear power plants and the high degree of uncertainties have only escalated the cost. The access of emerging economies to natural uranium through enrichment process and fabrication of nuclear reactor fuel elements will improve the situation. But this will not complete the nuclear fuel cycle as a whole; the back end reprocessing and final waste disposal will also have to include in the whole process. The nuclear radiation is present in all the phases of nuclear fuel cycle starting from uranium mining, to fuel production and irradiation in the reactor further processing and ending in with the waste disposal. The commercial generation of nuclear electricity is nothing less than a quantum leap in emerging economies. It's an economic development based on nuclear industrialization.

Jurisprudence of Nuclear Waste: Nuclear waste from the nuclear power generation programme is accumulating momentum internationally. Western States are indentifying policy, and law on the situation of nuclear waste. **The public perception of threat of radiation has evolved from scientific observation and prediction of the risk.** There is lack of appreciation for nuclear radiation risk. There is absence of any scientific assessment on data of exposure to nuclear risk in everyday life. One observation here is public opinions is build on the basis of scientific information as discussed in previous chapter.

This has also become a major obstacle to the development of nuclear energy. There is absence of any clear policy regarding the storage and disposal of nuclear waste and absence of any clear regulation which based on law[358].

Collaboration at all levels between natural and social scientists and between the scientists and policy makers is continuing to find a science based decision[359]. It also confirms the precautionary approach.

Based on White Paper in June 2003, A draft on Nuclear Sites and Radioactive Substance Bill[360] is in process in UK. Under the Principle of Sustainable Development; The Joint Convention on Safety of Spent Fuel Management and on the Safety of Radioactive Waste is

[358] See also: Unpublished Research Paper Submitted to De Montfort University on 2006/12/06.
[359] Ibid, Unpublished Research Paper Submitted to De Montfort University on 2006/12/06.
[360] Peter Riley, "Nuclear Waste: Law, Policy and Pragmatism," Published: Ashgate, England, First Ed., 2004, Chap. 01, Nuclear Waste and Energy, Pg. 1-32.

conducted[361] at international level.

IAEA and Nuclear Waste: The role of the IAEA as stated in the Code of practice on the issues of Transboundary movement of radioactive waste. Its job is to collect and disseminate information on the laws, regulations and technical standards pertaining to the radioactive waste management and disposal; develop relevant technical standards and provide advice and assistance on all aspects of radioactive waste management and disposal[362] having particular regard to the needs of developing countries. Establishment of best practices for the management of nuclear spent fuel and radioactive waste.

In *ARCO Chemie Nederland Ltd*.[363] the ECJ stated: '*that the concept of waste couldn't be understood by excluding substances and objects that are capable of being recovered as fuel in an environmentally friendly manner and without substantial treatment'*. Nuclear waste must be handled in a sustainable manner so that a reasonable obstacle to the sustainable development of nuclear energy may be removed.

A civilian nuclear power programme of a country engaged in regional conflicts may raise suspicions and apprehensions regarding the ulterior military motives to produce nuclear weapons of future will remain. But dynamic dialogue process in international law can take care of it.

Part C: Politics of International in the Global South

Introduction: Civilian nuclear power and military nuclear power are incongruous. Finance and transfer of nuclear technology is the major hurdle in growth of nuclear power emerging economies. Transfer of nuclear technology has become a diplomatic warfare.

Brazil, China and India nuclear power is not free from the shadow of the international politics. Brazil has traces of Argentina-Brazil syndrome. China has traces of communist syndrome. India has traces of Indo-Pak syndrome.

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[361] Kageneck, de A. and Pinol, C, (1998), "The Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management," International & Comparative Law Quarterly, Vol. 47, Apr. Pg. 384.

[362] Peter Riley, "Nuclear Waste: Law, Policy and Pragmatism," Published: Ash-gate, England, First Ed., 2004, Chap. 01, Nuclear Waste and Energy, Pg. 1-32.

[363] Cases 418/97 and 419/97. (2000) ECR I-4475. See also: Peter Riley, "Nuclear Waste: Law, Policy and Pragmatism," Published: Ash-gate, England, First Ed., 2004, Chap. 01, Nuclear Waste and Energy, Pg. 1-32.

How nuclear supplier group effects negatively on the transfer of nuclear technology for the peaceful purposes? How IAEA can play an important role in nuclear technology for peaceful purposes? How IAEA can provide safeguard to prevent diversion of nuclear technology from peaceful to military purpose? What are the inherent failures of international rules in governance of non-proliferation of nuclear technology? What should be the conduct of states?

This illustration provides argument to some of these questions. How some questions can be answered while some will remain unanswered why?

Nuclear reactors have been denied apart from the technical and infrastructure reasons, on the political and diplomatic considerations.

It is believed that the civilian nuclear technology can be very easily diverted to the military purposes as the chain reacting materials that produce energy inside a reactor can also be used to make a nuclear explosive. Nuclear Non-Proliferation Treaty (here in after NPT) and the IAEA build safeguards and mechanisms to control the spread of nuclear technology for nuclear explosives and for military purposes.

Finances and nuclear technology have been denied to emerging economies based on political consideration ignoring the energy needs of these countries. Nuclear reactors have become tools of diplomatic warfare.

The treaty in force in a technical sense but without force as a regulatory regime among those determined to defy it. Non-aligned signatory states are critical of the nuclear policies of the nuclear weapon states for seeking to deny them, nuclear technology which is so essential for their economic development. Non-Nuclear Weapon State (here in after NNWS) have been deprived their sovereign right to pursue (develop) nuclear technology for civilian purposes.

Political overview of Brazil Nuclear Programme: Brazil's nuclear power programme including its efforts to acquire reprocessing and enrichment facilities is not free from the shadow of Argentina-Brazil action-reaction syndrome. The *Comissa Nacional de Energia Nuclear* (CNEN) and Institute for Atomic Energy at Sao Paulo were established to carry out research on nuclear technology in the mid 1950's to train scientific and technical personnel with a view to achieving self sufficiency in nuclear energy technology. The programme actually started in 1979 under the overall control of the military and the National Nuclear Energy Commission (CNEN) the agency which looks after Brazil's nuclear R&D.

Brazil is in possession of important sources of uranium used for nuclear energy. Nuclear

energy could be alternative sources of energy if reasonably priced and dependable source.[364] Brazil exports uranium with the prior approval of the CNEN and the Armed Forces General Staff (EMFA) and the National Security Council (CSN).[365]

Brazil was critical of excessive restrictive policies of the US. This dependence used by the US as a lever in other bilateral dealings. But Brazilian leadership was reluctant to increase the countries vulnerability to external pressure on the energy field. US ability to withhold fuel elements for its reactors made it vulnerable with serious threats to its energy economy. This anticipated vulnerability forced policy makers to explore the possibilities of diversified nuclear cooperation particularly with the European countries and the Israel.

The nuclear reloading is undertaken by URENCO, a joint German, British, and Dutch Consortium. Brazil will have its own enriched uranium to fuel. Brazil also started negotiating with France for nuclear cooperation particularly in the area of joint research in thorium-uranium exploration and nuclear power plant construction. Brazil signed a multi-billion dollar deal with the German firm, Krafwerk Union (KWU) for the sale of complete nuclear cycle. Oil embargo of 1973 hastened Brazil to explore for European alternatives for nuclear power plants and reduced dependency on oil as source of energy.

This deal included: 1. Creation of joint company; 2. Uranium enrichment: using Becker jet - nozzle technology; 3. Fuel fabrication; 4. Reprocessing spent fuel; and construction of nuclear power plants.

Nuclebras has also entered into joint venture known as *Nuclebras Equipmentos Pessados* (NUCLEP) with Germany and Austria for the manufacture of heavy equipment for 1300 MW reactors. Germany ensured and signed a contract from Brazil it that it will not produce nuclear explosives and will not copy Germany technology. However Brazil's refusal to sign the NPT and its deal for a complete nuclear fuel cycle generated a serious controversy.

This led to adoption of number of nuclear proliferation control measures of London Supplier's Group. This impacted the reinsurance of Lloyds. Brazil like India realized that Thorium is most useful in breeder reactor technology which however is not likely to assume

[364] Frank D. Mc Cann, " Brazilian Foreign Relations in the 20th Century," in Wayne Selcher (Ed.) Brazil in the International System: The Rise of a Middle Power (Boulder, Colo, Westview, 1981), pg. 06. See also: K.D. Kapur, "*Nuclear Non- Proliferation Diplomacy: Nuclear Power Programmes in the Third World*," Lancer Books; New Delhi, 1993, Chapter. 1 Chapter 5 and Chapter 7, Nuclear Power in the Developing Countries: Developmental Necessity and Non-Proliferation Constraints; Brazil : Challenging Argentina's Nuclear Supremacy and Nuclear Power Profile of India; By K.D. Kapur, Pg .10-43; 143-175 and 222-255.

[365] Government of Brazil, National Energy Balance, pg. 7-8

commercial significance very soon. Brazil has succeeded in creating powerful nuclear infrastructural facilities with military and civilian purposes. It has taken Argentina into confidence.

Russia has also signed an agreement with Brazil for isotope production and research reactor equipment. Germany is again signing an agreement on transfer of technology training in reactor and power plant safety and the monitoring of radioactivity in the environment. A research programme is initiated to build mathematical models and computer programme that could prevent nuclear accidents and assistance in nuclear waste storage sites.

Political overview of China's Nuclear Programme: China's nuclear weapons programme was initiated in the mid-1950. The country carried out its first nuclear test in 1964, followed by 45 more[366]. China has tested the entire range of nuclear weapons from uranium and plutonium bombs and thermo-nuclear warheads to neutron weapons.

China regards nuclear weapons as 'political currency' to bargain in restrictive regulated international political arena. The People's Republic of China is a longstanding member of the nuclear club, having joined in the mid-1960.

China's Communist party had forced China to build nuclear weapons of its own. China built up a comparatively small nuclear force largely aimed at deterrence based on the ability to retaliate, and explicitly declined to become involved in arms races with other nuclear powers.

China 'nuclear self-defence strategy' is based on five principles: 1. Deterrence of nuclear weapons use or nuclear blackmail directed against China; 2. ensuring the survivability of its own nuclear weapons in order to be able to carry out a second strike in the event of nuclear attack; 3. relinquishment of nuclear first use; 4. A centralized command for nuclear weapons; 4. Nuclear weapons only to be used against key targets. China has no interest in encouraging a debate with Japan on whether Japan should acquire nuclear weapons of its own.

China was initially hostile to the Nuclear Non-Proliferation Treaty (NPT), which came into effect in 1970. China even actively encouraged it, and used it against others where it suited its own national interest. Pakistan was given the blueprints for nuclear warheads. Beijing delivered highly enriched uranium to its neighbour and assisted them with the construction of a uranium enrichment plant. China has signed the Comprehensive Test Ban Treaty (CTBT), it

[366] China's Nuclear Arms Build – up: Background and Consequences, CSS Analysis in Security Policy, CSS ETH Zurich, No. 140, September-2013.

came into force once the US also signed it. The risk of nuclear instability in a region is high Border disputes leads to unclear security architecture.

Political overview of India's Nuclear Programme: India is one of the states which is having ambiguous nuclear status. It is considered a nuclear threshold power. Its civilian nuclear power programme has been linked with its nuclear weapon programme. The political rivalry and the existence of perpetual conflicting relations between the two countries have added serious dimension to the nuclear question in South Asia.

India has an ambitious civilian nuclear power programme with already seven nuclear reactors in operations and eighth having gone critical and many more being in the process of becoming critical.

It has an indigenous capability to produce its own natural uranium fuel, to construct CANDU (Canadian Deuterium Uranium) type reactors, to produce heavy water to moderate them, and to re-process the spent fuel and convert it into weapon grade uranium.

India's nuclear programme right from its inception is geared to achieve self –reliance in the long run[367].

Conventional plutonium uranium oxide will be used for the prototype reactor. The research on the possibilities of a new fuel however was continuing like mixed nitride for the fuel and the option of using a pure plutonium-uranium metal mix. India's prototype Fast Breeder is already in making[368]. All other countries except China have followed a plutonium route to nuclear capability. India based on indigenous technology developed at the BARC using hydrogen sulphide as the feed material.[369]

General Electric Company of US assisting India in Boiling Water Reactor in all stages of design construction and commissioning through an organized training programme[370].

India's building thorium based breeder reactor as it would ensure utilization of thorium of which India has the largest reserves.[371] India has the technology and capabilities to construct

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[367] G.G. Mirchandani and P.K.S Namboodri, *"Nuclear India; A Technological Assessment,"* Vision Books, New Delhi, 1981, Pg. 32. See also: David Hart, '*Nuclear Power in India: A Comparative Analysis'*, (London, 1983). Pg. 21.

[368] "*India's FBR Programme Faces New Delays*," Nuclear Engineering International, February 1991, Pg.4.

[369] G.G. Mirchandani and P.K.S Namboodri, "*Nuclear India; A Technological Assessment*", Vision Books, New Delhi, 1981, Pg. 32.

[370] K.S.N. Murthi, N.P. Srivastava, B.K.S. Nair, "*India's Nuclear Power Programme: An Overview*," Nuclear News, Vol. 33, No. 05,Pg. 40.

[371] David Hart, Nuclear Power in India: A Comparative Analysis, (London, 1983). Pg. 21.

and design nuclear power reactors. India has allayed all such fears on the ground that IAEA safeguards would apply to countries taking the advantage of India reprocessing offer.

Some Critical Comments on the Politics of International:

Aviation Re-insurance: In continuation with my debate from the previous chapters we have seen that the marine insurance is the progenitor of insurance. But from early twentieth century the aviation insurance also commenced. With commercial growth of airlines from transportation of passengers to goods aviation risk also increased manifold. Soon Aviation risk got heavily based on computation of mathematical possibilities. For a single insurer it was difficult to absorb such huge risk it needed an international insurance market to absorb this risk. As we also know there is no international law of insurance as it is a subject of domestic law of nations and air industry is extended arm of defence and foreign ministry so it's highly regulated by the State.

State intervention in the economic affairs of the aviation market forces airlines to relocate to favourable regulatory jurisdiction where law is not much settled especially in emerging economies. Aviation corporate entities in this competitive atmosphere have created a complex regulatory environment. There is wide difference between regulatory approach of U.S. and Europe. The aviation charter is still based on marine charter which faces legal hurdle during aviation accident claims dispute. International carriage contract is based on English law system and international political differences have not been able to find an amicable solution to it. There is no proper law of contract *Lex fori* (Law of place) or *Lex loci contractus* (Place of making contract) to assist, when interpretation of aviation insurance policies takes place on accidental claims.

I will once again invigorate my argument that Underwriting is a structured decision making process which involves use of logic with assumption. No doubt the calculation of risk is based on quantitative data or in other words claims data, but still the final 'acceptability of risk' by a decision maker or underwriter is made on the subjective basis.

Underwriters will determine the total amount of premium needed to meet average expected claims levels and then add an allowance for future catastrophes, commissions, and expenses and profit on return of capital employed. Airlines companies have to demonstrate its proficiency in safety measures.

Role of underwriter becomes very important when he assumes risk and signs the slip aviation risk. Once the lead underwriter has signed the slip, the broker will approach other underwriters. The reinsurance contracts are formed by conventional offer and the broker circulates this offer in market to obtain quotation and an experienced underwriter endorses the slip on basis his experience. His assumption of risk is on the basis of experience which has subjectivity.

Politics of international can be seen how a US based aviation insurance companies generally doesn't write on Non-US airline business although exceptions are there.

As I have already discussed the hegemony of western reinsurance industry have also influence upon drafting of international convention on air law and limits of liability on happening of an accident. From Israeli Raid on Beirut Airport in 1968 to 9/11 (11/09/2001) incident, special clause came to be used in aviation industry like 'War, Hijacking and Other Perils Exclusion' in the London Insurance Market against loss damage and liability in return of premiums. Aviation risk writing has also given aviation pooling arrangement of capital for risk.

Aviation risks are placed in all countries through exchange of reinsurance. Regulators face a dilemma in supervision of reinsurance in order to protect the financial security of reinsurance.

The debate has also once again brought forward the fact there is lack of qualified human capital who have technical knowledge to assess the safety aspect in the field of aviation which is a huge constrain in emerging economies.

Nuclear Re-insurance: Taking cue from my previous chapters I put forward my observation that like regulation, nuclear risk is a combination of many subjects and can be given multiple academics interpretations. Influenced by western hegemony it has developed in an environment of mistrust and secrecy. A strong state approach is required in politics of international. There is no denial that there are deceptive links between civil nuclear power and military nuclear power.

Global north regulates the highly technical rules to control the transfer of nuclear technology. This highly technical nuclear risk analysis builds a wide gap between risk expert and the layman in the emerging economies which points towards a creation of unique legal and institutional framework for themselves. It is made to believe that western designed nuclear installations are trustworthy in risk management standards. In market economy this translates

into safety over nuclear risk. With strict adherence of nuclear liability conventions, the politics of international wants to command and control regulatory authorities under a common umbrella. But here also politics of international plays and there is wide split between the U.S. and Europe approach from supplying of nuclear reactors to transfer of nuclear technology. The politics of international by delaying the supply of nuclear reactors to transfer of nuclear technology escalates for transaction cost for nuclear energy directly in emerging economies. The emerging economies are unable to reap the benefit of cheap nuclear energy in the name of nuclear risk. Also vested political interest influenced by politics of international proves a major hurdle. Heavy price for nuclear risk hampers the efficiency of nuclear power for emerging economies.

Another important observation is that under international influence nuclear pool never adheres to the domestic nuclear legislation in the emerging economies. IAEA can play an important role on behalf of emerging economies but cross border restrictive regulation has incapacitated it.

Regulators in emerging economies face a dilemma in supervision of reinsurance in order to protect the financial security of nuclear reinsurance. Regulation of reinsurance needs proper structured framework taking into account the individual market characteristics and individual legal system.

Role of underwriter becomes very important but his structured decision making process is influenced by high investment costs of nuclear power plants and high degree of uncertainties which escalates the cost. There is high profit leverage for corporate entities as stakes are high and it forces them to increases the appetite of risk.

Conclusion: The purpose of this illustration is not to supply an alternative model or treatise on aviation insurance and nuclear law. The point I make using this illustration is that the state must develop its own legislative framework based on its own situation. It should include its own constitution, legal framework, culture, tradition, scientific knowledge, technology and industrial capacities. It should also include it financial and human resources. State has to develop capacities to address issues of legal drafting in the area of nuclear law. There is an enormous range of requirements and rules which are necessary for regulating nuclear

technology. International law has to play a constructive role. Civil society can also contribute in quality of decision making in a democratic way.

The need for developing a consensus on technical and management issues in the regulation of broad spectrum of nuclear law has been highlighted. Impetus is needed of harmonization of national and international law.

International law has a significant role to play as it can assist in the refinement of national law. International instruments need to provide support on a plethora of issues including the safety of civil nuclear power reactors, spent fuel and radioactive waste management, safety, nuclear liability and physical protection of nuclear material in the era of terrorism.

Nuclear law is a high technology field where terminology matters. Potential military uses of nuclear energy and nuclear arms control of disarmament must be addressed by other forums. Economic and social development must not be mixed with international politics.

Chapter 7

Conclusion and Suggestion

Chapter 7

Conclusion and Suggestion

7.1 Conclusion and Suggestion:

My research was on the anticipation and assumption of risk, on how risk regulation organizes resources to avert risk and on how reinsurance seeks to mitigate its damage. Through the course of the work a demonstration of how the concepts of 'risk', 'risk regulation' and 'reinsurance' emerged from four different jurisdictions with a similarity of circumstances and how these concepts have been employed. Further, I have examined how these concepts have achieved stability through their engagement with socio-cultural, economic, and political and human phenomenon with the passage of time.

The research I have undertaken in this study yields a set of diverse and multifarious policy implications. However, central to the diversity of policy implications is the acknowledgement that the clash of phenomenon that give rise to 'risk' are complex and multi-faceted. Therefore, the rationale of leaving policy designs that seek to understand and address 'risk' must not be the province of a small set of technocrats. I suggest an alternative approach to 'risk' needs to be founded on a decision making process that conducts itself through a participatory mode of engagement.

The *a priori* condition that enables developing a coherent policy perspective toward risk, however, I reiterate, lies in the distinction between risk, an expected future event, and a disaster, an already realized event, which ought to be the first proposition. It is only through a theoretical and analytical appreciation of this distinction that pragmatic policy can emerge.

The policy puzzle, it must be noted, is striking a sound balance between anticipation and resilience. That is, being mindful of our reliance on the past events to form policy expectations to mitigate risks and developing resilience that will dampen the effect of novel risks. It is also in our engagement the high wire act of balancing our ability to comprehend risk and the necessary predilection with making correct predictions. Moreover, it is in our ability to temper our demands of manageability with limitations that such exercises are subject. It is in the midst of this world that risk-regulation thrives.

The problem however is that there is a volatile debate on 'what is' and 'what is not' risky. This is due to the fact that the shapes and forms that risk takes gets more and more diverse as

the degrees of diversity of the jurisdiction under consideration increases. That is simply to say that an operational notion of risk in one region of India will necessarily be different from some other region in China, for example.

These manifold levels of complexity, however, do not serve a deterrent to those looking answers. In the context of emerging markets, for example, a comparative approach towards the anticipation of risk has witnessed some success. Risk, we must recollect, has a significant bearing on the design of 'public policy' and, therefore, on the institutional environment.

When new developments take place in emerging economies they come with a mixed bag of optimism and pessimism with respect to risk due to the diversity of behavioural perspectives risk provokes. There is a significant role the media plays in fostering such perspectives. Illustrative examples are the 'risk of a meltdown in the nuclear power plants' and the 'risk of terrorist attack' in the context of 'aviation insurance'.

In the context of the financial market, for example, agents overestimate their ability to identify and control the risks arising from the use of this financial innovation. They rely heavily on the techniques of risk management based on a mathematical computational table, statistical analysis, and probability which overlook the element of judgment which human element in decision. In the financial crisis re-occurrence will certainly raise finger on the regulators to find appropriate solutions and prevent another crisis. This has also leaded to another kind of risk culture to arise that is 'compensation culture' which is a reformation of the *tort law.*

Through this thesis I have tried to stress the point that there is no archetypical market structure or regulatory system that works perfectly in all economies or legal jurisdictions. This flies in the face of **t**he main goal of financial regulation, which is to minimize the systemic risk and harmonize regulations across jurisdictions. Financial market agents have failed to understand that inter-linking of the financial markets globally and have made economies more susceptible to risk.

The main point which thesis has made through its various illustrations is that state must develop its own legislative framework for addressing risk based on its own situation. It needs to include its own constitution, legal framework, culture, tradition, scientific knowledge, technology and industrial capacities. It should also include it financial and human resources towards the end of policy design.

Learning from the past in itself is insufficient, as regards risk. The fact of the matter is that the question of the relevance of the past in mitigating unforeseeable events ought to always remain a question for policy makers. That being said, both the public sector and private sector need to conceptualise organizational strategies that will enable them to utilize the past constructively.

As the opportunity to conceive of strategies towards mitigating risk arises, so does, threats to the mode of that mode of governing. The process of designing and choosing a mode of governing risk is an endeavour that is formed in the context of a highly politicized environment the role of vested interests is not to be undermined. This leads to un-anticipated consequences say for e.g. in the nuclear power risk either it will used for power generation despite all odds for economic growth or stick with renewable energy. In aviation insurance terrorist threat will lead to extra security check at the airports for passengers bear with it or bear the risk.

Perhaps this underpins the strong links between liability and insurance. It's a major factor affecting the compensation limits in emerging economies. Anticipating risk sometimes leads to anticipatory resistance and tussle risk management techniques. Risk regulation in effect takes on the form of avoidance of blame and criticism.

Risk-regulation being about balancing different interests sees regulators struggle in anticipating valid response to control future. Risk governance based on best practices which are: remove the shortcomings in governance i.e. risk mapping; broad understanding of risks; adoption of risk culture in firms; and to control deterioration of underwriting skills.

The thesis also provides insights concerning policy that regulations are meant to correct market failures of competitive markets and ensure a level playing field. However, in emerging economies the reluctance of the government to divest its control over the important sectors limits the scope to provide desired results.

When we regulate by numbers it leads to anti-thesis of risk anticipation system, generates a risk of its own. In anticipation of risk the role of policy making is to achieve a balanced response and an explicit recognition; it is not possible to anticipate and manage all risks.

The practical dimension of policy must account for the fact that recognising risk and manage it is an endeavour fraught with limits. Sometimes origin of risk is unclear. Risk-regulators are unable to deal with risks going beyond national borders for e.g. in financial world and

natural disasters.

We are witnessing attempts to reposition from expectations of total security and resilience to zero tolerance which is neither achievable nor even desirable. We need to accept the reality is zero tolerance of risk is an illusion.

Since a long time insurance business was practiced by foreign insurers or by subsidiaries of foreign insurance and reinsurance companies. Business was normally handled by the head offices abroad. State insurance corporations may be able to harness the full capacity of its domestic market for various reasons it still will be necessary to purchase some reinsurance from abroad. The reinsurance provides insurers with additional underwriting capacity. They can accept larger risks than otherwise would have been possible.

In emerging markets regulators face a dilemma between liberalization of reinsurance transitions, and financial security of reinsurance. Regulators can obtain the essential information of reinsurers; e.g., investment, capital and management requirement, and reinsurance business. However the direct supervision of reinsurers may impede the liberalization of reinsurance transactions and increase transaction costs.

An impetus is needed towards the harmonization of national and international law. The role of international law is assistance in refinement of national law.

Dr. F.L. Tuma[372] a noted expert on reinsurance once expressed the function of reinsurance by drawing analogy with a shock absorber. He wrote: *"....The purpose of reinsurance is purely technical. It is a means which an insurance company uses to reduce from the point of view of possible material losses on the peril which it has accepted. When a carriage fitted with a shock absorber passes over a rough street the road becomes smoother but the passenger will feel the jerks less as these are absorbed by the vehicle. So it is with reinsurance it doesn't reduce losses but it makes it easier for insurance to carry the material consequences.... "*

General Guidelines for Law and Policy in developing countries: No country is immune from the adverse effects of globalization.

[372] A.S . Chaubal, The Reinsurance, (IC-85 ,Revised Edn. 2002, Insurance Institute of India, Mumbai, Pg 02-03 , Chapter-01)

Stiglitz says appropriate policies[373] can influence process of growth which is more sustainable and broad based. "*The big challenge for developing countries is abject poverty that deprives large section of people a dignified life. The policies have to be pro-poor development*".[374]

Jagdish Bhagwati has suggested in order appreciate the benefits of globalization it is important to differentiate between economic globalization which has a positive impact on all economies irrespective of their level of development and other forms of globalization which have good or bad effects depending on their contents.

Amartya Sen has eloquently argued in his writings and speeches freedom cannot be judged solely in terms of its contribution to growth or economic well being. However developing countries face challenges in the area of politics, economics and governance. Participative democratic system will ensure corrective action to make economies stronger. But there is disjuncture between economies and politics, the country's institutional structure its social realities and global environment. Future strategy is still conditioned by the colonial legacy. For a better future and sustained high growth it is essential to evolve policies that are practical and pragmatic and can reconcile the country's economic interests with political realities with a democratic (participative) framework.

We have seen developing countries growth was largely a labour intensive one which absorbed new entrants to employment. But now there is shift to higher productivity industry and services. From1990's growth became capital oriented employment generation diminished. Initially there was consumption but gradually it shifted to egalitarian pattern of income distribution.

Growing income inequalities shifted economy from supply to demand constraint. Liberal trade policies is necessary condition for economic development relating to investments in education, infrastructure, human capital and health care and the quality of a country's political and legal and bureaucratic institutions also matter . The quality of a country's institutional capital is also an important determinant of the development.

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[373] Mehta, P.B. (2003), *The Burden of Democracy*, Penguin, New Delhi; See also Stiglitz, J. (2002), Globalization *and its Discontents*, Allen Lane, London, p.ix. See also Bhagwati, J. (2004), *In Defense of Globalization*, Oxford University Press, New York; See also M. Trebilcock," *What makes Poor Countries? The Role of Institutional Capital in Economic Development*," E. Buscaglia, W. Ratliff & R. Cooter (Eds.) The Law and Economics of Development,(Connecticut: JAI Press, 1997).

[374] As World Development Report 2000-01 says," *Markets work for the poor because poor people rely on formal and informal markets to sell their labour and products, to finance investment, and to insure against risks. Well-functioning markets are important in generating growth and expanding opportunities for poor people*."

In the end, I would like to quote famous Indian Law and Governance writer (*Pratap Bhanu Mehta*) in India: *"...the broad frameworks within which practices of popular authorization can be carried out remain intact but politics itself has become an area where norms exist only in their breach… The very mechanism disguised to secure the liberty, well being and dignity of citizens representative democracy is routinely throwing up forces that threaten to undermine it, the very laws that are supposed to enshrine republican aspirations are incapable of commanding minimal respect and their inaction subject the entire political process to ridicule . The corruption mediocrity indiscipline venality and lack of moral imagination of the political class that essential agent of representing in any democracy makes them incapable of attending to the well being of citizens*".

Epilogue

Epilogue

With the invention of new technology the players in the financial market overestimate their ability to identify and control the risks. This arises from the use of this financial innovation models. Relying too heavily on the imperfect science of risk management which is based on mathematical computational table, statistical analysis, and probability but overlooking the role of judgment which is human element in decision making.

The regulators cannot foresee or control all risks they have to focus on how to improve risk management capabilities based on society to be used for society before it impacts the financial institutions. The success of the regulatory institutions is in having effective interactions and integrations with various other bodies; legislative, administrative, judicial, civil society, etc.

There is no single market structure and regulatory system that works for all economies or legal jurisdictions. The main goal of the financial regulation is to minimize the systemic risk and harmonize the regulations across the jurisdictions. If we look at the *raison d' etre* of the independent sectoral regulator, it is to correct market failures and ensure a level playing field.

Glossary

- Acquisition Cost: All expenses incurred by an insurance or reinsurance company which are directly related to acquiring business.
- Administration Expense: Cost of running a business other than acquisition cost and settling claims.
- Adverse Selection: The submission by a reinsured to his reinsurer of those risks, segments of risks or coverage's that are less attractive for retention by the reinsured. This occurs when a protection provider cannot clearly distinguish between different classes of risks, and leads to little or too much supply of risk coverage at a given price.
- Alternative Risk Transfer: A product channel or solution that transfers risk exposures between the insurance and capital markets to achieve specific risk management goals.
- Alternative Risk Financing: Use of the capacity available on the capital markets to cover insurance risks, e.g. through the securitizations of natural catastrophe risks.
- Alternative Risk Transfer Market: The combined risk management marketplace for innovative insurance and capital market solutions.
- Anniversary: This is the date for renewal of a contract whether the contract actually expires or is continuous. The date is usually 12 months from the effective date of the contract. In provisions dealing with run-off of contracts the anniversary date is that of the underlying policies and not the reinsurance contract.
- Arbitration Clause: A clause in reinsurance treaties whereby the parties agree to submit any dispute or controversy to a mutually agreed arbitrator including an umpire in lieu of those provided as per process of law. Although the wording of the clause may vary it provides for the decision of a majority of the arbitrators to be binding on the parties to the reinsurance treaty.
- As If: This is a method for recalculation of prior years of reinsurance experience to demonstrate what the underwriting results of a particular program would have been if the proposed program had been "as if" in force during that period.

- Assume (Accept): Accept all or part of a reinsured's insurance or reinsurance on a risk or exposure through various forms of reinsurance.
- Balance: The ratio between written premium under a treaty and the maximum limit of liability to which he reinsurer is exposed. The ration will vary from treaty to treaty. If the ratio desired for a specific treaty is achieved the treaty is referred to as "balanced".
- Basic Risk: The risk of loss arising from an imperfect match between a loss-making exposure and a compensatory payment, or an underlying exposure and hedge.
- Binder: A record of reinsurance arrangements pending the issuance of a formal reinsurance contract which then replaces the binder.
- Bordereaux: A derailed report of insurance premiums and losses policy wise as submitted by a reinsured to his reinsurer. Bordereaux reporting is usually done in respect of pro-rata reinsurance arrangements. In contemporary practice bureaux from reporting is dispensed with a subsisted by summary reports.
- Broker: An intermediary who negotiates contracts of reinsurance on behalf of the reinsured, while receiving commission for placement and other services from the reinsurer.
- Capacity: Conceptually it is a measure of an insurer's capability to accept a level of risk as proposed. Another measure of this capability is in the maximum volume of insurance (or reinsurance) business that an insurer is prepared to accept.
- Captive: A risk channel that is used to facilitate a company's own insurance/reinsurance, risk financing or risk transfer strategies; a captive is generally formed as a licensed insurance/reinsurance company and can be controlled by a single owner or multiple owners (or Sponsor's).
- Cede: This is a decision to pass on to a reinsurer all or part of the financial interests by the reinsured with the object of reducing the possible liability from the insurance policies as written.
- Cedant: This is another way to refer to the reinsured or ceding insurer.
- Claims Made Basis: The provision in a contract of insurance or reinsurance that coverage applied only to losses which occur and claims for which are made during the period a policy is in force.

- Co-insurance: A ‘shared loss’ component between cedant and insurer.
- Communication: In systems theory, the basic social operation. Each communicative operation is seen as a unity of information, message, and understanding. In contrast to the term “action”, which implies an attribution to one entity that is acting, “communication”” therefore requires at least two entities involved.
- Commission: Agents Commission- A percentage of premium paid to an agent for insurance placement services. Brokerage- A percentage or fee paid to a broker for insurance or reinsurance placement services. Ceding Commission- A percentage of the reinsurance premium paid by the reinsurer for part or all of a reinsured acquisition cost and administration expense. The ceding commission may also include an element of profit to the reinsured. Overriding Commission- a. An incremental commission paid on a retrocession of reinsurance. B. Paid to compensate an existing agent for premium volume produced by other agents in a given geography territory.
- Cover Note: This is a statement in writing indicating that coverage is in place. In reinsurance this is also evidenced by the Slip.
- Contingent Capital: Contractually agreed financing facilities that are made available to a company in the aftermath of a loss event.
- Cut-Through-Clause: This clause provides that in the event of the reinsured’s insolvency any part of a loss covered by reinsurance be paid directly to the original insured by the reinsurer. This is an exception to the legality of privity of contract.
- Decision: In system theory, a certain type of communication that is explicitly framed as contingent. Before the decision this contingency appears as a multitude of possible selections; after the decision, the contingency appears as the difference between the chosen alternative and all the others that would have been possible. Observers can disagree about whether or not a communication has the character of a decision.
- Direct Written Premium: This is all the premium income of an insurer, adjusted for additional or return premium, prior to any reinsurance ceded or reinsurance assumed.
- Derivatives: A financial agreement including futures, forwards, options and swaps,- that derive their value from a market reference; derivatives can be used to hedge or speculate.

- Diversifiable Risk: A risk that is company-specific, meaning that it can be reduced by holding a portfolio with a large numbers of obligations/exposures; known as idiosyncratic risk.
- Diversification: A spreading or diffusion of risk exposures commonly used to lower risk by combining exposures are not related to one another.
- Earned Premium: The premium which is proportionate to the period of insurance or reinsurance which has expired and for which there would be no further obligation to entertain any claim in future.
- Enterprise Risk Management: A risk management process that combines disparate risk, time horizons and instruments into a single, multi-layer program of action.
- Expected Loss: The expected value of the loss distribution function.
- Experience Rated Policy: A loss sensitive insurance contract where the insurer charges a premium that is directly related to the cedant past loss experience the greater the past losses, the higher the premium.
- Experience Rating: An insurance premium rate modified by past loss experience.
- Excess of Loss Reinsurance: A type of reinsurance which indemnifies the reinsured against all or a part of the amount of a loss in excess of specified loss retention. This type of reinsurance is also known as Non-Proportional Reinsurance.
- Follow the Fortune: A concept inherent in any reinsurance relationship which, when expressed in an agreement, generally runs to a statement that the reinsurer "shall follow the fortunes of the ceding company in all matters failing under this Agreement" or shall do so…. "in all respect as if being party to the insurance," or similar language.
- Fronting: An arrangement whereby one licensed insurer issues a policy on a risk for and at the request of one or more other unlicensed insurers with the intent of passing the entire risk by way of reinsurance to the other insurer(s). Such an arrangement may be illegal if the purpose is to purpose is to frustrate regulatory requirements.
- Function System: A social system focusing on only one societal function and operating with specialized communication, based on a binary code, in order to fulfil

this function. Function systems include the political system, the economic system, and the legal system.

- Gross Loss: The amount of a ceding company's loss irrespective of any reinsurance recoveries due.
- Hard Market: A scarcity of a product or service for purchase, as opposed to a soft market, in which the product or service is available readily and easy to buy. In reinsurance, a hard market is characterized by prudent underwriting and adequate pricing, whereas a soft market reflects sloppy underwriting and deficient pricing.
- Hedging: A process generally associated with risk that are uninsurable through a standard contractual insurance framework, and which typically result in the transfer, rather than reduction, of exposure.
- Indemnity: A central principle of insurance that indicated that the cedant cannot profit from insurance activities; that is, insurance exists to cover a loss, not to generate a speculative profit.
- Insurable Interest: A proof that the cedant has suffered an economics loss once a defined loss event occurs; an essential element for a valid insurance contract.
- Insurance Contract: An agreement between two parties (the insurer as protection provider and the cedant as protection purchaser) that exchange an ex-ante premium for an ex-post claim, with no ability to readjust the claim amount once it has been agreed.
- Incurred But Not Reported (IBNR): The liability for future payments on losses which have already occurred but have not yet reported in the reinsurer's records. This definition may be extended to include expected future development on claims already reported. Thus, technically IBNR covers the field from (a) those individual losses that have occurred but have not been reported to the insurer or reinsurer to (b) that amount of loss that may arise from known loss which has been reported as an event but which has not been recorded in full to its ultimate loss value (known as loss development).
- Insolvency Clause: A provision now appearing in most reinsurance contracts (because many states require it) stating that the reinsurance is payable, in the event the

reinsured is insolvent, directly to the company or its liquidator without reduction because of its insolvency or because the company or its liquidator has failed to pay all or a portion of any claim.

- Law of Large Numbers: A mathematical concept which postulates that the more times an event is repeated (in insurance, the larger the number of homogeneous exposure units), the more predictable the outcome becomes. In a classic example, the more times one flips a coin, the lore likely that the results will be 50% heads, 50% tails.
- Layer: The total amount of excess of loss reinsurance protection which a company needs to protect a given set of exposure is usually not written in one contract. Instead, the total amount is split into pieces or layers and separate contracts are written which fit on top of each other and have similar or identical terms but separate limits which sum to the total amount required. Each of the separate contracts in the series is called a layer or level in the total program.
- Lead (or Leading) Underwriter: The individual (or organization) with a major role in negotiating the terms and conditions of a reinsurance cover and whose reputation and standing are such that other underwriters respect his or her ability, skills, and judgement and will often follow the terms and conditions set by the lead without further negotiation.
- Line: Either the limit of insurance to be written which a company has set for itself on a class of risk (line limit), or the actual amount which it has accepted on a single risk or other unit. A class or type of insurance (fire, marine, or casualty, among others), also known as Line of Business.
- Losses Paid: The amounts paid to claimants as insurance claim settlement.
- Loss Ratio: Losses incurred expressed as a percentage of earned premiums.
- Loss Reserve: For an individual loss, an estimate of the amount the insurer expects to pay for the reported claim. For total losses, estimates of expected payments for reported and unreported claims. May include amounts for loss adjustments expenses.
- Modernity: Distinctions between different historical phases neglect the contradictory and diverse process of social change. Therefore it is regularly contested when exactly modernity or modernization started and significantly changed itself. The terms are

rather analytical tools. Often the 17th and 18th Centuries are seen as a time when ongoing process, such as secularization, rationalization, individualization, industrialisation, and functional differentiation, intensified. In theorizing on reflexive modernization these processes form a so-called first modernity, simple modernity, or classical industrial modernity, which is distinguished from a second modernity or reflexive modernity. The latter radically question the institutions of first modernity while basic principles remain. For e.g. the idea of scientific enlightment remains while, as a result of its success, science becomes relativized by social critique and self-critique.

- Obligatory Treaty: A reinsurance contract (usually pro rata) under which the subject matter business must be ceded by the ceding company in accordance with contract terms and must be accepted by the reinsurer.
- Original Policy: The policy written by the original insurer.
- Peril: A Cause of Loss.
- PML: The anticipated maximum property fire loss that could result, given the normal functioning of protective features (firewalls, sprinklers, a responsive fire department, etc.) as opposed to MFL (Maximum Foreseeable Loss), which would be similar valuation, but on a worst case basis with respect to the functioning of the protective features. Underwriting decisions would typically be influenced by PML evaluations, and the amount of reinsurance ceded on a risk would normally be predicted on the PML valuation.
- Premium Capacity: The ability for an insurer/reinsurer to write a large volume of policies on the same line of cover.
- Pool: Any joint underwriting operation of insurance or reinsurance in which the participants assume a pre-determined and fixed interest in all business written. Pools are often independently managed by professionals with expertise in the classes of business undertaken, and the members share in the premiums, losses, expenses, and profits. And “association” and a syndicate” (excluding that of Lloyd’s of London) are both synonymous with a pool, and the basic principles of operation are much the same.

- Portfolio: A defined body of (a) insurance (policies) in force (known as a premium portfolio), (b) outstanding losses (known as a loss portfolio), or (c) company investments (known as a investment portfolio). (The reinsurance of all existing insurance as well as new and renewal business is therefore described as running account reinsurance with portfolio transfer or assumption).
- Professional Reinsurer: A term used to designate an organization whose business is manly reinsurance and related services, as contrasted with other insurance organizations which may operate reinsurance assuming departments in addition to their basic primary insurance business.
- Profit margin: As a pricing factor (along with expenses and losses). The return the reinsurer expects from the degree of net risk taken. As with any investment, the reinsurer expects a larger return from than safe investments.
- Risk: An uncertainty associated with a future outcome or event.
- Risk (Cultural Perspective): The transgression of symbolic boundaries. These boundaries might be socio-culturally or individually constructed. Whether they are linked to "real" risks or not depends on the respective approach.
- Risk Society: A risk refers to an uncertain future and is therefore at least partly hypothetical. Furthermore, Beck sometimes refers to risk calculation as the modern strategy to control the future rationally. From the risk society's perspectives these forms of statistical-probabilistic-calculation are eroded and demand new reasonable strategies to manage uncertainties and ignorance. Risk society is also regarded by many who use the term as an effect of the pathological development of science and technology to the point where their harmful potentialities outweigh their benefits.
- Reciprocity: The mutual exchanging of reinsurance, often in equal amounts, from one party to another, the object of which is to stabilize overall results.
- Risk identification: A defining all of firm's actual, perceived or anticipated risks.
- Risk Philosophy: A statement that reflects the firm's objectives related to the management of risk.

- Risk Pooling: A practical implementation of risk diversification, and a fundamental mechanism of the risk management markets, based on the idea that independent (e.g. uncorrelated) risks can be combined to reduce overall risks.
- Risk Premium: A payment made by a risk averse firm to secure coverage of risk protection.
- Reflexivity: In the context of reflexive modernization, reflexivity means "self-confrontation with the consequences of risk society which cannot (adequately) be addressed and overcome in the system of industrial society" or, more precisely, the application of the principles of modernity to its own institutions. On the institutional as well as individual level, reflexive refers to the reflex-like response to social conditions without enough time, resource, and knowledge of a future which is in principle, uncertain. This has to be distinguished from the notion of reflection as a growing self-awareness.
- Reinsuring Clause: Language that describes the coverage agreed upon by the parties, i.e., what is covered and when. The key components are three: the indemnity aspect of the agreements, the type of business covered, and the method of determining whether a loss falls within the scope of the agreement. Also known as Cover Clause, Business Reinsured Clause, and Application of Agreement Clause.
- Retention: The amount of insurance liability (in pro rata, for participation with the reinsurer) or loss (in excess of loss, for indemnity of excess loss by the reinsurer) which an insurer assumes (or retains) for its own account.
- Retrocession: The reinsuring of reinsurance. Retrocession is a separate contract and document from the original reinsurance agreement between a primary insurance company (as the reinsured) and the original reinsurer.
- Risk Based Capital: The amount of capital needed to absorb the various risks of operating an insurance business. For example, a higher risk business requires more capital than one with lower risk. The calculation is intended to be unique to each company.
- Set-off: The reduction of the amount owed by one party to a second under one agreement or transaction by crediting the first party with amounts the second party

owes the first party under other agreements or transactions for the purpose of determining the amount, if any, the first party owes to the second.

- Securitization: The process of removing assets, liabilities or cash flows from the balance sheet and conveying them to third parties through tradable securities.
- Surplus Reinsurance: A form of pro rata reinsurance indemnifying the ceding company against loss to the extent of the surplus insurance liability ceded, on a share basis similar to quota share. Essentially, this can be viewed as a variable quota share contract wherein the reinsurer's pro rata share of insurance on individual risks will increase as the amount of insurance increases, given the same reinsurer's retained line, in order that the primary company can limit its net exposure to one line, regardless of the amount of insurance written.
- Sub-politics: An area of public discourse and conflict where formerly non-political issues are discussed and influenced beyond the formalized democratic institutions significantly influenced by media coverage, NGO's and critique groups.
- Treaty: A reinsurance agreement between the reinsured company and the reinsurer, usually from one year or longer, which stipulates the technical particulars applicable to the reinsurance of some class or classes of business. Reinsurance treaties may be divided into two broad classifications: (a) the participating type, which provides for sharing by reinsured and reinsurer of insurance policy liability, premiums, and losses; and (b) the excess type, which provides for indemnity by the reinsurer only for loss which exceeds some specified pre-determined amount.
- Uncertainty: In much Governmentality work, and the "risk society" literature, uncertainty normally refers to situations in which risk cannot be deployed, and where reliance is placed on other, "subjective" techniques of estimating the future. However, this distinction is not rigidly adhered to, and in some Governmentality accounts, uncertainty is used to refer both to uncertainty in the narrower sense, and to risk.
- Underwriting Year Experience: Simplistically, the segregation of all premiums and losses attributable to policies having an inception or renewal date within a given twelve-month period.

- Underwriting Year Basis: In rating, the use of all premiums written as arising from all policies written or renewed during the year and all losses relating to those same policies, whenever they may occur.
- Unearned Premium Reserve: The sum of all the premiums representing the unexpired portions of the policies or contracts which the insurer or reinsurer has on its books as of a certain date. It is usually based on a formula of averages of issue dates and the length of term.

Credit Rating: Definitions: Insurance Ratings Definitions from Standard & Poor

- AAA: An insurer rated "AAA" has Extremely Strong "financial security characteristics. " AAA" is the highest Insurer Financial Strength Rating assigned by Standard &Poor's.
- AA: An insurer rated "AA" has Very Strong financial security characteristics, differing only slightly from those rated higher.
- A: An insurer rated "A" has Strong financial security characteristics, but it somewhat more likely to be affected by adverse business conditions than are insurers with higher ratings.
- BBB: An insurer "BBB" has a Good financial security characteristic, but is more likely to be affected by adverse business conditions than are higher rated insurers. An insurer rated "BB" or lower is regarded as having vulnerable characteristics that may outweigh its strengths. "BB" indicates the least degree of vulnerability within the range; "CC" the highest.
- BB: An insurer rated "BB" has marginal financial security characteristics. Positive attributes exist, but adverse business conditions could lead to insufficient ability to meet financial commitments.
- B: An insurer rated "B" has a Weak financial security characteristics. Adverse business conditions will likely impair its ability to meet financial commitments.
- CCC: An insurer rated "CCC" has a Very Weak financial security characteristics, and is dependent on favourable business conditions to meet financial commitments.

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